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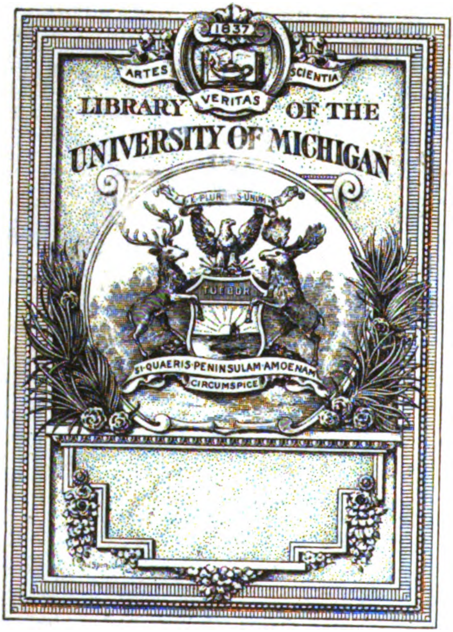

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EDITED BY

V. J. FOURGEAUD, M.D.

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THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Report of Cases by the Medical and Surgical Society.

THE following highly interesting cases have been reported on at recent meetings of this society:

Operation for Complicated Hare-Lip.

Dr. Peters related a case of operation for complicated hare-lip by Langenbeck's method. The child was five weeks old, and the fissure extended through the hard palate. The edges were pared so that an angular flap was left at the prolabium on one side to fit a bevelled surface on the other. The edges were kept in apposition by the pin suture, and the prolabial flap was united by pin suture on the opposite side. The advantage of this method is that the pouting cicatrix is avoided better than by Malgaigne's method. A brother of this child was operated on at the age of six weeks by Dr. Buck some years ago, and the fissure in the palate has narrowed considerably.

Knee-Joint Amputation.

Dr. Peters also alluded to a case of knee-joint amputation for necrosis of the tibia, that he had recently had at St. Luke's Hospital. The wound was united completely at the end of ten days, excepting in the track of the ligatures. Nearly the same result was obtained in a case operated on a year ago, at the same hospital. The patients were both boys, and both had extensive necrosis of the tibia.

Compound Fracture of the Tibia—Plaster of Paris Splints.

Dr. Peters also described a case of compound fracture of tibia and fibula, with fracture of the thigh on the same side, in which he had derived great advantage from the use of the plaster of Paris splints. The wound in the leg was covered with collodion, converting the fracture at once into a simple one, no trouble arising from inflammation. The tendency to filling up of superior fragment was effectually overcome by plaster of Paris splints placed above and below the point of fracture. This being accomplished, he was enabled to treat the fracture of the thigh by the elastic extension. The patient expected to have the apparatus removed in a few days.

Delirium Tremens and Convulsions.

Dr. Hinton related a case of delirium tremens, which he had recently attended, where the patient had several severe convulsions the night after he was called, but recovered so as to be quite well again on the following day. Dr. Hinton thought that delirium tremens patients who had convulsions rarely recovered.

Dr. Buckley had repeatedly known them to recover.

Dr. McCready thinks such cases are generally complicated with uræmia, and in his experience are generally fatal. No examination was made in Dr. Hinton's case.

Dr. Agnew made some observations on the epidemic of measles that had lately occurred at the Military Hospital under his charge. There had been two hundred cases, generally in soldiers from the rural districts. The active period of the disease has been, as a general rule, unusually short, and there has been a marked tendency to the development of phthisis during convalescence. There has also been comparative immunity from abscesses of the ear: in two cases only out of two hundred. In eighty cases, seventy-eight never had the disease before.

Mulberry Calculus—Lithotomy.

Dr. Peters exhibited a mulberry calculus which he had recently removed at the New York Hospital from an Irish boy, aged 17. The father of the patient died of gravel. For three past years the patient had followed the sea, and for many years has suffered from an irritable bladder, especially in midsummer. During the last four months there has been great difficulty in urination. There had been hæmaturia but once; the urine contained earthy phosphates, pus, and a little blood. The stone was removed by the lateral operation. The dimensions of the stone were three and seven-eighths inches in its larger, and three and three-eighths inches in its smaller diameter. The weight was four ounces. The surface of the calculus was encrusted with a layer of triple phosphates. The calculus itself is made up of alternate layers of urea and oxalate of lime.

Dr. Elliot alluded to a post-mortem examination of a child under one year of age, in the pelvis of whose kidneys he found a calculus as large as four grains of rice.

Dr. Sands referred to a dissecting-room subject, in whom he found a uric acid calculus in the urachus, illustrating the intra-uterine formation of calculus.

Foreign Bodies in Trachea.

Dr. Markoe related a case of foreign body in the trachea. The patient was a boy, to whom Dr. Markoe was called to prescribe for cough, which was at first not considered serious. It became very troublesome, however, and was accompanied with spasmodic attacks of dyspnœa. The chest was resonant on percussion, but there were some localized bronchial rales in the left lung. After suffering without relief for five or six weeks, he coughed up a piece of walnut shell, which he remembered to have swallowed the "wrong way" shortly before the cough began to trouble him.

Dr. Clark related a similar but more remarkable case. His patient was a man, who, four years before Dr. Clark saw him, inhaled while laughing violently a piece of chestnut shell. Cough followed, and continued to annoy him until Dr. Clark saw him. There was no physical sign of disease except imperfect expansion of one lung. Shortly afterwards he had an attack of pneumonia, from which he recovered, though the cough still continued, until six years after the accident before mentioned he expectorated half a chestnut shell, encrusted with calcareous matter. He recovered completely.

Dr. Clark related another case of a boy who swallowed half a timothy head. He coughed constantly for six years, and finally died. The timothy head was found imbedded in a cavity in the centre of the lung, and the lung condensed around it.

Dr. McCready related the case of a girl who swallowed a bead one inch long, which passed into the larynx, and remained there or in the bronchi one year, producing paroxysmal cough and occasionally slight hemorrhage. One day he coughed up and swallowed it the right way, and it was afterwards found in the evacuations.

Dr. Buck related the case of a doctor who in his youth inhaled a piece of cinnamon, which produced cough and hemorrhage, and great emaciation and prostration of strength. It was finally expectorated, and the symptoms were entirely relieved.

Frontal Neuralgia Dependent on Oxalmia.

Dr. Elliot related a case of persistent frontal neuralgia, which had resisted a great variety of treatment in this country and in Europe. An examination of the brain detected the presence of a considerable amount of oxalate of lime. The patient, in view of this fact, was put upon the use of No. 5, and recovered rapidly and entirely.

Singular Case of Hernia.

Dr. Parker related a singular case of hernia. A young man, enjoying vigorous health, complained for the first time of abdominal pain around the umbilicus and right groin, and some sickness in the stomach, on Monday morning. This not yielding to ordinary remedies, a physician was called, who regarded it as a case of colic, and treated it accordingly. The pain, constipation, and nausea continuing, Dr. Parker was called in consultation on Thursday. He found the patient with a rapid feeble pulse, cool surface a somewhat tumid abdomen, with tenderness in the right hypogastrium, pain singultus, and nausea with vomiting. On closer examination, an oblong tumor, soft and doughy to the feel, and somewhat discolored, was found extending from the external abdominal ring upwards and outwards on the right side three and a half inches towards the superior spinous process of the ileum. An examination of the scrotum showed that the testicles had never descended into their vaginal sacs. It was at once decided to cut down upon the tumor. The incision was made along the long axis of the tumor. Cutting through the integument and the common fascia, the tendon of the external oblique was divided, and the sac exposed as well as the right testis. The sac was reversed and extended towards the anterior superior spinous process. About ten inches of the ileum had escaped. It was very dark. The finger was passed in towards the internal ring, which was unusually deep, and the structure torn with the finger. The gut brightened immediately, and was reduced without difficulty. The patient has probably done well, Dr. P. having heard nothing since the operation, three weeks ago.

Prolapsed Funis.

Dr. Cock related a case of prolapsed funis, in which Dr. Thomas's method of reduction was resorted to without success. Dr. Elliot stated that success was not to be anticipated in this operation without manipulation, replacing the cord and maintaining it within the uterus until the head had become engaged, or the cord had been placed behind some projecting part of the fœtus.—*American Medical Times.*

* * *

THE Edinburgh College of Physicians has decided by a vote of eighteen against sixteen that women doctors shall not receive diplomas.

Belladonna in Epilepsy.

At the Hospital for the Epileptic and Paralyzed, belladonna and its alkaloid, atropia, are still in favor as remedies for epilepsy. Under these remedies most patients with epilepsy, especially if they suffer much between the paroxysms, are benefited.

In treating epilepsy we must remember that, although in many cases we may not be able to cure, we can very often diminish the number of fits; and even if we cannot do that, the patient's general condition is often much improved. Many patients attend the hospital who have had fits for very many years, and though they have no hope of being cured, they, nevertheless, experience great benefit, and are rendered capable of resuming a comparatively active life. Although this is not a cure, it is the next best thing to it.

The prescription generally used is—Extract of belladonna a quarter of a grain, quinia one grain, in a pill three times a day. Of atropine, 1-120 of a grain is given three times a day. Of both, the dose is gradually increased. Although given in increased doses, they are rarely observed to produce in epilepsy, much physiological effect. Sometimes, however, the patients complain of dryness in the throat, and of defective sight. We think it will be noticed that patients with dark eyes suffer more from it, and that these patients are often hypermetropic.

When the sight is affected by belladonna or atropine, it is because the ciliary muscles is paralyzed partially or totally, and hence the power of accommodation is impaired, or altogether lost. It is not likely that it is due to dilatation of the pupil, as in congenital irideremia the accommodation is good, and in a case recorded by Graefe, in which the whole of the iris was removed by operation, it remained perfect. It was lost, however, when atropine was put into the eye.

Patients, of course, complain a good deal when their sight is impaired, however little, by any course of treatment, but they can be assured that the defect is only temporary. In some cases of cataract belladonna has been used for years without injury to the eyes, and without losing its powers.

In no case have we noticed dullness of hearing to be produced by this drug. Very likely there may be some slight impairment of hearing which the patient does not notice. Very often there is tinnitus aurium, and some little defect of hearing attending it, but this is common in epilepsy whether belladonna be given or not. We have not noticed that patients have complained of increase of deafness under its use. If a solution of atropine were dropped into the ear it might then paralyze the small muscles of the ear, and produce defective accommodation for sound, if such a phrase is allowable.

Another method in which Dr. Brown Sequard uses atropine in epilepsy is to inject a solution of it and morphia into the part from which an aura starts. This was done in several cases with excellent results. A solution containing one-sixtieth of a grain of atropine and a quarter of a grain of morphia is injected with Wood's syringe. In the several cases in which it was used it did not produce any immediate effect in the patients, and no giddiness, etc. The operation is not painful.

It is supposed that belladonna acts on the bloodvessels producing contraction. Ergot, also, Dr. Brown-Sequard believes, has this property; and hence their use in local inflammatory conditions of the brain or spinal cord. Ergot, he believes, has a greater action on the vessels of the spinal cord, and belladonna on those on the brain. In paraplegia from myelitis, a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna is given three times a day. The action of belladonna in arresting the flow of milk, and in causing dryness of the throat, muy be explained also on the hypothesis of its diminishing the supply of blood to those parts. —*Medical Times and Gazette.*

On the Employment of Mercury and the Iodide of Potassium in the Treatment of Syphilis.

BY DR. LUNIEN-LAVILLAUROY.

Having sketched in a bold style the history of the treatment of syphilis by mercury, having pointed out at what period of the disease, and against what symptoms mercurials may be useful, M. Junien-Lavillauroy sums up in his thesis the principal modes of the administration of mercury, and insists specially on the method of Montpellier, or that of radical cure. The first part ends with a table of the principal mercurial compounds, arranged in the order of their activity.

We know that M. Bonchardat divides the principal compounds of mercury into: 1st. *The soluble preparations.* Iodhydrargyrate of the iodide of potassium: bi-chloride (corrosive sublimate); and cyanide of mercury.

2d. *Insoluble preparations.* The red oxide; the proto-chloride; proto-iodide; and metallic mercury.

This arrangement is admitted by all therapeutists, particularly by M. Trousseau.

The second part of this work is devoted to iodide of potassium. The opinions advanced by the author are summed up in the following conclusions:

I. If, with the generality of physicians, we adopt the method of radical cure, or that of Montpellier, in the treatment of constitutional syphilis, the practice which consists in giving the iodide of potassium after the disappearance of the symptoms under mercurial treatment, is always useless and may often become injurious.

II. The mixed treatment is very energetic, and ought to be employed in the case of very obstinate and inveterate syphilis; but with the condition, that, if we wish for a durable cure, the mixed treatment must be continued a long time, or that after it the ordinary mercurial treatment should be continued for a certain period.

III. We understand the prompt and immediate treatment on the part of those physicians who do not believe in the preventive action of what they term anti-syphilitics; but from that moment they give them to anticipate new symptoms, according to the rules of the method of Montpellier (and, it must be remarked, all those who give the iodide of potassium after mercury, do it for this end), all these do the opposite to what they propose to do. They drive in fact, the mercury from the economy, the specific which they have designedly accumulated in it, and to which they are proposing to add, perhaps injuriously, another specific, the iodide of potassium.

IV. The action of potassium on the compounds of mercury fixed in the economy explains the opinion that iodide of potassium does not act as an anti-syphilitic in tertiary syphilis, except in those persons who have previously undergone a mercurial treatment.

V. The iodide of potassium may act not so much as iodide of potassium, as in transforming the mercury in the system into a more active compound, the iodhydrargyrate of iodide of potassium. So that there would seem in reality but one specific for syphilis, *mercury.*

VI. When in syphilitic patients symptoms appear a long time after mercurial treatment (and with much greater reason when it has not been employed at all), as we may suppose that there is no mercury left in the system, if we wish to treat the patient by iodide of potassium, in order to count upon its action, it is well to give at the same time a mercurial preparation; that is to say, to follow what Vidal de Cassis calls the mixed treatment.—*Boston Medical and Surgical Journal.*

Case of Retention of a Portion of the Placenta.

BY W. CHANNING, M. D.

Mrs. ——, 41, was taken in her fourth labor, November 24, 1861. She was attended by a midwife, and was naturally delivered at 7, A.M., of a son. I was called to see her at 2, P.M., of the same day. I had attended her in her third labor, which was without accident, and learned the following particulars of her history, the recital being prompted by the diseased condition which led to the call. From girlhood Mrs. —— was in the habit of rejecting a portion of every meal. She did not vomit it, but it would accumulate in her throat, as for rumination, and be gradually spit up. At times there was great distress in the stomach after eating. This condition has often been present during her whole life, but has never seriously impaired her health. I do not recollect that it was alluded to in the labor in which I attended her.

In the seventh month of her present pregnancy, the stomach trouble declared itself in an unusually severe form. She could not bear any amount of food on her stomach, and while it was retained, her distress was extreme. It had no resemblance to that state of stomach which attends on early pregnancy, nor on that which sometimes occurs at the close of that function. It was accompanied by great suffering. One symptom was especially referred to. This was intense heat in the organ. So great was this, that at times she drank, in a night, nearly or quite two quarts of cold water. When first swallowed or while cold, there was comfort, but as it grew warm this disappeared and the water was violently thrown up. She did not perceptibly lose strength or flesh, and but for a long continuance of this disturbance, it might have been regarded only as a modification of the sympathetic stomach difficulty which occurs in the last months of pregnancy, and at times with such severity as to render premature delivery necessary to save life. At times there was more or less embarrassment of respiration during the attacks. The bowels had not been much disturbed.

It was said above that labor was over at 7, A.M. It was but an hour long. The after birth was adherent, and the midwife took it away, as she said. Some hæmorrhage attended, and followed the operation, but was not deemed of sufficient amount to detain the attendant for more than an hour, she leaving at 8, A.M. Mrs. —— had another professional engagement, if such it could be called. Her next attendant was a *Botanic*, who brought two bottles with printed labels, one labeled *liniment—external*, *internal*, and a powder. One label was partly scratched off; but a part of the written directions was, "teaspoonful *swallowed*." Mrs. —— took one dose, but such was the intenseness of heat which it produced in the mouth, and the racking pain in the stomach till she vomited it, that she declined taking a second dose. An homeopath was next called. The three tumblers, No. 1, No. 2, No. 3, were duly arranged on the table, with a teaspoon on each, lest disturbance of therapeutic effects might be produced by using the same spoon. Mrs. —— took Nos, 1, 2, 3, till she was tired, getting not the least relief from the *potency*; and I was desired to see her, and at once, as it was feared she would die before my arrival, if it were delayed.

I found her in great distress. Her breathing was short—as if the air, having reached a certain point, could get no further. Violent attempts were made at eructation; and from the stomach, black masses like blood were thrown up in the vomitings. I asked about this, and was told that in the four days previous to labor the appearance of the matter vomited resembled these now ejected. Upon examination of the abdomen, pressure could not be borne at the epigastrium, and this was found to be the case by carrying the pressure to the left hypochondrium—the right was not disturbed by pressure. The uterine tumor was very large, considering that it was now about eight hours since the delivery. I felt for the pulse but found none, either in the right or left wrist. I asked if she had flowed much. "Yes," was the answer, "excessively," and flowing still continued. The napkins removed showed this. She was flowing when the attendant left.* Notwithstanding all this, the color of the lips and the warmth of the skin were perfectly natural. The strength seemed good. There was no sighing, but a very striking dyspnœa. The voice was clear, and the manner not at all depressed. The womb was examined. Coagula were removed, and the os uteri felt. It was closed during this operation, and was high up, very firm, and too tender to tolerate any degree of pressure more than was necessary to ascertain its actual state. The womb, as was said, was unusually large, and perfectly solid. At one spot pressure produced flinching. It was at this point the midwife said the placenta had been attached. Stimulants were given at once, and to relieve the alarming distress opium was added. While these measures were proceeding, means were used to check the hemorrhage. A firm bandage was applied round the abdomen. The tampon was used, as was ice, and a strap from the bandage was passed between the limbs, and drawn strongly over a compress applied to the external organs.

Much relief of the stomach and lungs followed the opiate, which was repeated as indicated, when relief was expressed after a manner not to allow any question of its reality; and when resorted to afterwards, was alike salutary. I had in view what Stuart says in his monograph, printed some time ago, of the beneficial uses of opium in uncomplicated uterine hemorrhage, though I did not give it in as full doses as he does. At times he gave as many as 80 drops at a dose, and repeated it if necessary, and never with any ill effects. My friend Dr. Bartlett, of New Bedford, in a conversation on the medicinal properties of opium, said he had found a combination of the bicarbonate of soda with it very useful in preventing some of the uncomfortable effects of this narcotic. Among these he mentioned headache, nausea, &c. I have frequently used this combination, and did so in the case of Mrs. ——. The hemorrhage—or leak, which it had become,—was at length checked. Of this, Mrs. —— was soon aware. Every physician must have observed how sensitive women sometimes are about the passage of blood over the limbs in these cases. It is its comparative warmth, probably, which makes them aware of this. This sensitiveness is sometimes met with in a degree to disturb the physician who is not aware of its power, for a very few drops will lead to the words, "I am flowing"—words most unmusical to the medical ear. Mrs. —— was not disturbed by this occurrence. I told her that the ice would melt, and the warm water produced might imitate flowing. She did not refer to this occurrence I think more than twice during the many hours I remained with her.

The pulse continued to be uncertain. Sometimes it was to be felt in both wrists, but always with most distinctness in the right wrist. It was often wanting in the left, sometimes in the right. It was never *frequent*. This I deemed a very promising fact in its pathological bearings. The heart was acting feebly under the loss of a large amount of its great and important stimulus; but it acted *regularly*, whenever it could be detected in the artery. Stimulants, especially brandy, were always followed by a return of the pulse, and increase of its force. The stomach-sinking was also relieved. "That goes to the right spot," was the language which expressed the relief. At times a large quantity of wind was afterwards discharged from the stomach.

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* A neighbor was called in as the attendant left, who told me some time after that such was the saturation of the bedding and bed with blood, that it was deemed necessary to remove Mrs. —— from her bed to the floor, that a fresh bed might be made for her. The quantity of blood was described as enormous.

Sleep had, as we have said, been disturbed for four nights just preceding labor. When quiet came, as it did from opium, sleep came with it. It was profound, with heavy snoring, and full puffing in expiration. These last attracted attention. Mr. —— was applied to, and he said this kind of sleep was natural. At times they were so disturbing that sleep was broken to stop them. The soundness of the sleep to-night might be owing to the long-continued previous watchfulness. At midnight I retired, after having carefully instructed the night attendants as to their duties, and after directing them to call me if anything occurred concerning which my advice might be necessary.

25th. Between 6 and 7, I saw Mrs. —— and learned that the night had been comfortable. There had been no noticeable hemorrhage, and sleep had been less labored. The pulse continued feeble, and at times disappeared, but some food or other stimulants brought it back as before. The bandage, compress, *&c.*, were removed, and no evidence of recent hemorrhage discovered. Speaking of stimulants, a mixture of tincture of cinnamon and cinchona was given. (A medical friend suggested this to me many years ago in such cases, and I have often usefully employed it since.) The womb was smaller and less tender. There had been no urine recently, and a large quantity was drawn by the catheter, with the customary relief.

5, P. M. But little gain since morning, the pulse being still uncertain. Mrs. —— said her nurses had given her less nourishment than she felt she needed. Stimulants were freely given, with much relief from the sinking feeling; and directions as to quantities and time, as before, were insisted upon. It was clear that Mrs. —— knew when she had enough, and was a better judge of this than were her attendants.

26th. Mrs. —— not so well. Hemorrhage returned as midnight, and continues. Pulse as before, at times felt feeble, but still slow, about 75 per minute. Extremities cooler than before—manner of exhaustion. Stimulants—tampon and T bandage compression. Fluid extract of ergot every two hours, and two teaspoonfuls of brandy every half-hour till reaction. If uterine action, without bearing down, remove pressure from external organs. Mrs. —— was seen twice in the forenoon, and again at 5 P. M. Fluid extract vomited, as have been all other ingesta. At this visit more favorable report. Uterine action had occurred, and a cylindrical mass, several inches in length, and one inch in diameter, had been expelled. Its surface was light colored—mottled, smooth—very firm—requiring much force to cut through it, in direction of its length. Internal surfaces of the section black—uniform—exactly resembling blood which had been very forcibly compressed. It was at first thought to be the placenta, and was found to be so after a later examination. The fœtor of decomposition was strongly declared. Great relief had followed the expulsion of this mass. Hemorrhage had ceased at once. The uterine tumor had nearly disappeared, and the abdominal walls were soft and flaccid. Strong eructation had followed the three doses of the fluid extract, and with these the extract was thrown out of the stomach, as declared by its taste. I was called to see Mrs. —— at midnight, as it was supposed she was dying. No signs of dying were present. She was restless—had not slept—and was as uncomfortable as she well could be. The solution of sulphas morphæ, which had been usefully exhibited before, was now given, and brandy and water as before, and she soon became calm. The solution was to be repeated as previously. Was called again at 6, A. M., the 27th, but found no cause for alarm.

27th, 5, P. M. Mrs. —— is much as before in regard to pulse, but the day, upon the whole, had been a tolerably comfortable one. Liquids of all kinds, except cold water, were rejected, as in fact they have been during most of the disease, and in the same manner, by eructations. A strong desire was expressed for some kind of solid food, as it would produce less flatus than liquids, and in very small quantities would answer a better purpose. Bread was asked for, and the request granted.

28th. Called early. Mrs. —— delirious all night, making violent efforts to spring out of bed. No sleep and no pulse. Lower limbs cold. Head hot. Easier than in the night. A teaspoonful of solution, with directions to repeat if necessary. Called again about noon. Lost sight; soon after I left, she calling for a lamp. Dozed, and then fell into a sound sleep, soon accompanied by stertor. Draws up right lower limb, and straightens it again in a perfectly natural manner. Carries right arm over the head, resting it on the back of it, a common position in health, both when awake and asleep—then placing it along her side. Left side motionless. No pulse. Surface colder. She sank gradually, and died without any convulsive or other movement.

A word of managing the afterbirth. Different rules. One—and Denman's, I believe—says wait an hour after the child's birth before interfering. Others recommend a less delay. I knew a physician, now dead, who never waited, but at once proceeded to deliver. If nothing occurs to demand interference, it is better to wait for uterine action, and to solicit action by pressure and friction over the uterine tumor. But contractions may occur quite as severe as during labor, and the afterbirth does not advance. Examine the uterine tumor; especially ascertain if displacement exist—inversion, for instance, or hour-glass contraction. Examine per vaginam, to learn the state of the os uteri—following the guidance of the cord. If the placenta be still in the womb, and the cord seem to spring from its centre, then pass a finger to its nearest edge and bring it gently down; when sufficiently advanced draw alternately by it and the placenta, and if no morbid adhesion exists, it will soon advance and be delivered. I have seen a case in which much embarrassment was felt, as the placenta did not advance with such force as seemed sufficient and safe. In this, the above method was successfully adopted. Suppose the placenta be not within reach, wait, unless hemorrhage occur. If this come on, or is present, pass the hand and learn what is the cause of delay. Hemorrhage depending only upon separation, learn where this exists, and make further separation in its direetion, if this can be done.

Remarks.—The placenta is occasionally retained in consequence of adhesions, which all safe efforts for separation and removal cannot or do not overcome. Sometimes it disappears—at least no portion of it is discerned, though carefully looked for. I have met with one such case. This patient did perfectly well, and afterwards had a child without accident. I saw, in consultation, a case of retained placenta between two and three weeks after the child was born. The womb was found as high as before labor, its fundus resting at the epigastrium. It was cylindrical in form. Examination found the lower end of the placenta protruding somewhat from the os uteri. I drew is slowly away. No hemorrhage. In shape it was perfectly cylindrical, and more than twelve inches in length. It was greyish in color, or mottled, dark and white. It was not decomposed. Mrs. ——, who was very ill with the severest symptoms of metritis, and peritonitis, died in a few days after my visit. Examination discovered an abcess in the uterine substance, in the fundus, and at its upper portion, and a perforation in its centre through which pus had passed into the peritoneal cavity.

I have seen another case of chronic placentary adhesion, in which the uterine substance had given way, and upon examination after death a portion of the placenta was found protruding, and lying broadly upon the peritoneal surface of the fundus uteri. Mr. Mudock, of Edinburgh, published, several years ago, a report of a case of retained placentas, for his patient had twins. The placentas and membranes were retained six weeks, during the whole of which time a solution of alum was injected into the womb; not on account of hemorrhage (for there was none), but to prevent decomposition. When the placentas came away they were found to be as perfectly preserved as in any other well-made preparation.

It is asked, "Why was not the placenta removed in Mrs. ——'s case?" The question is pertinent. In answer, it may be said that it was stated the placenta had been removed by Miss or Mrs. ——, the alleged midwife. It had been drawn away with violence, and intense suffering; and, as was added, because Miss or Mrs. —— had on hand another case of labor. What this violence in degree was, may be inferred from the small, but long, very hard, cylindrical mass which was ultimately expelled from the womb. It was but a small portion of the placenta, and had evidently been left in the hurry, and the force used for the removal of the organ, by the pre-engaged attendant. Attempts for the forcible removal of what was not supposed to be the womb, under the circumstances of the patient, were abandoned as wholly contra-indicated. Mrs. —— was often so low that the smallest increased annoyance must have been fatal. Clear reaction had in no sense occurred. The same constitutional symptoms were always present, or improvement was too slight or too transient to be depended upon. Then the exquisite tenderness of the os uteri made manipulation not only dangerous but absolutely cruel. Mrs. —— was bearing with so much heroism—patience—absence of complaint—her heavy load of disease and suffering, that to add to it in any way was forbidden. Then the close contraction of the os uteri—its hardness, and the hardness of the cervix, added force to the conviction that mechanical interference could do nothing but injury. These are the facts in this case, which, to the writer, put interference out of the question.—*Boston Med. and Surg. Journal.*

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MEDICATED PESSARIES IN THE TREATMENT OF UTERINE DISEASE.—Dr. F. H. Tanner recently read a paper before the Obstetrical Society of London, on the use of medicated pessaries in the treatment of Uterine Disease. An abstract of the paper is published in the *Medical Times and Gazette.*

The great value of a variety of local applications in the treatment of uterine disease seems not to be sufficiently appreciated by the profession at large. The chief reason, perhaps, for the non-employment of medicated pessaries has been the difficulty of so making them that they can be efficiently applied by the patient herself. This difficulty is overcome by the use of the butter obtained from the theobroma cocoa nut, as a material for holding the drugs together, instead of wax and lard. Mr. White Cooper has shown the utility of this butter as a basis for ophthalmic ointments, and it will be found equally valuable for pessaries and suppositories. Though it has the consistence of wax while cold, yet it becomes liquid in a few minutes when introduced into the vagina. After alluding to the cases of uterine, ovarian, and bladder disease in which medicated pessaries are of great service, the communication ended with certain formulæ which the author was in the habit of prescribing. The following are examples:—"Mercurial ointment, four scruples; extract of belladonna, one scruple; cocoa butter, four drachms; olive oil, one drachm. Mix; divide into four pessaries, and order one to be introduced into the vagina every night. Iodide of potassium one drachm; extract of conium, four scruples; cocoa butter, four drachms; glycerine, one drachm. Mix; divide into four pessaries. Boxes of these pessaries, prepared by Mr. Cooper, of 26 Oxford street, were placed on the table for the inspection of the fellows of the Society.—*Phil. Med. and Surg. Reporter.*

Examination of the Urine in Disease.

From the French of Bouchardat.

A CHEMICAL examination of the urine will frequently clear up all difficulties in the diagnosis of a case, and Bouchardat has arranged the necessary agents for such an examination, so as to make the latter easy to the common practitioner. The principal agents employed are heat, nitric acid, tannin, lime and an ioduretted solution of the iodide of potassium.

1. *Heat.*—A little above 100°; the urine becoming turbid, will separate albumen in the form of clots or flakes. But it must not be forgotten that every specimen of urine which becomes turbid under the agency of heat is not necessarily albuminous; hence we must employ,

2. *Nitric Acid*—Add some of this acid carefully to the urine. If albumen be present, flakes will be deposited. An excess of acid will dissolve the flakes. Any urine that becomes turbid under the influence of heat, and renders a precipitate under the action of nitrid acid, contains, beyond all doubt, albumen.

3. *Tannin.*—A solution is made by adding 200 grammes of water to 10 grammes of tannin, and 10 grammes of ether are then added to preserve the solution. The action of this reagent cannot be relied upon, since the solution of tannin will produce an abundant precipitate, if soup, rich in gelatine, has been taken shortly before the analysis.

4. *Lime.*—This detects admirably the sugar of diabetes. Fifty grammes of urine and two grammes of lime, being boiled together in an assay-bottle, will give the color of caramel, more or less dark, according to the quantity of sugar present. The quick-lime is slacked with water and then introduced into a flask which has a tight cork. If 50 grammes of urine are not colored when boiled with two grammes of lime, then two grammes more should be added. After the mixture is boiled again, if no color appears, it is well to test the lime. For this purpose a half-teaspoonful of sugar-starch is poured into the flask. On boiling, if the urine should then be freely colored, we have proof that the lime had been properly calcined, and that the urine contained no sugar independent of the starch-sugar which had been added.

5. *Ioduretted Solution of Iodide of Potassium.*—This is prepared by dissolving one part of iodide in one part of iodide of potassium in fifty parts of water. This solution will communicate a chestnut-brown color to urine containing sulphate of quinine or any other alkaloid likely to be administered in therapeutics.

These are the reagents which it is well to recollect in order to dissipate a doubt, and to confirm a diagnosis.—*Journal de Chem. Med.; Amer. Med. Monthly.*

RESECTION OF THE ELBOW.—M. Bauchet exhibited to the Société de Chirurgie of Paris, a patient whose elbow he had resected in 1858. The result is as satisfactory as possible. The patient enjoys excellent health, and uses his forearm and hand as if the elbow had not been removed. All the motions of the limb are easily performed, and its sensibility is everywhere unimpaired. Flexion is very complete; and extension is made voluntarily and forcibly, as may be judged by grasping with the hand the forearm, and trying to resist the motion.—*Gazette Hebdomadaire.*

Results Obtained by Expectation in the Treatment of Pneumonia.

M. Barthez, Physician to St. Eugenie Hospital, read a paper entitled, "On the Results Obtained by Expectation in the Treatment of Pneumonia in Children." The author proposed in the paper to bring some proofs to the support of an opinion which begins to be adopted by the medical public, and which is summed up in the following phrase, borrowed from Legendre:

Simple pneumonia, developing itself accidentally in a person with good health, is, at least in children, a disease which terminates habitually, if not always, in a favorable manner. The truth of this assertion, says the author, will strike everybody, when I say, that from the month of August, 1854, until June, 1861—that is to say, a little more than seven years—I have treated in my wards in the hospital two hundred and twelve children attacked with simple pneumonia, in which I counted two cases of death from the pneumonia, which attacked both lungs. Of this number, almost one half received no treatment; for a large number of the others the medication was very mild, such as a purgative, an emetic or a bath; scarcely one-sixth of the patients have had any active treatment. A great number of the cases have been treated in the city by M. Barthez with analogous results. So that, says M. Barthez, I believe I am right in affirming that my assertion regarding the benignity of simple uncomplicated pneumonia is true as regards children, so far as the disease is observed in Paris, whatever may be the seat and extent of the disease, the season of the year, the medication employed, active, mild, or absolutely no treatment at all. I must, however, except double pneumonia, the only form in which I have seen it mortal, in the proportion of two cases in thirty. In presence of such a result, which at present removes more than one doubt, M. Barthez believed it very necessary to state precisely the exact conditions of the patients.

The patients on whom the observations were made were from two to fifteen years of age. It is only simple primitive lobar pneumonia which has been treated. Consequently lobular pneumonia, lobar congestions supervening during the course of grave fevers, secondary lobar hepatization, and especially those which complicate pulmonary tuberculization, are excluded. Thus, limited, primitive lobar hepatization has not, without doubt, still a unique origin, is not the expression of a disease perfectly determined and always identical with itself. M. Barthez agrees with those physicians who think that the inflammation of the organs is the result of general pre-existing morbid states, and that it habitually borrows from these diverse causes a particular physiognomy. Nevertheless, these pneumonias are confounded in their termination—they are all cured. If their nature gives to them differences, it is rather in their progress, their duration, and in the concomitant symptoms that we must seek, than in their termination. Now, it is just what we learn from the study of pneumonia left to itself. We may observe that many of the different symptoms observed in the progress and duration of the disease attributed ordinarily to the treatment, are a great deal more the consequence either of the mistaken cause of the inflammation, or of all the other circumstances, than those produced by the therapeutical remedies. But, passing this part of the history of pneumonia, adds M. Barthez, I am contented in the present paper to establish the duration of the period of increase, of decline and convalescence of this disease, and the influence exercised on these natural periods by an active or insignificant treatment; and also by the seat of the disease, at the apex, the base, or in both lungs.

The following are my conclusions: Abandoned to itself, pneumonia begins to resolve from the sixth to the eighth day from its beginning, and at the farthest on the seventh, in the half of the cases. Once in three or four cases the resolution commenced the fourth or fifth day; once in five it did not begin until the eighth day. An insignificant treatment did not produce any change in these proportions. Convinced of the benignity of the disease, the antiphlogistic treatment has appeared to me contra-indicated. It was much more so, as I observed that several children submitted to bleedings, continued more than others pale and thin during all the duration of a long convalescence. However, with some patients only, I have felt justified in repeated bleedings, and the resolution of the inflammation has commenced, the fifth, the sixth. the seventh, and the tenth day. Resolutions once commenced, the disease requires very little time to terminate. Ordinarily the period of decline is accomplished in from two to six days, rarely in from seven to ten. This natural duration of the period of decline is not sensibly modified by the treatment; but if this causes any modification, it is not in favor of patients actively treated. Left to itself, the pneumonia of children terminates very often in ten days, habitually in less than fifteen days. The proportion is almost reversed when the children have been submitted to an active treatment. This is the rule for unilateral pneumonia; double pneumonia, treated or not, demands all of fifteen days to reach its termination. Passing to the study of the duration of convalescence, I find that the advantage remains very evidently with the expectant plan, or with a treatment very mild. In children who have not been treated, the duration of the convalescence has never exceeded fifteen days; it has been from fifteen to thirty days with those who bave been submitted to the antiphlogistic treatment. Relatively to the seat of the inflammation, the pneumonia which occupies the middle portion of the lung is that one which resolves the quickest. Pneumonia of the apex and the base have the same duration. The pneuomnia which occupies the whole upper part of the organ is that which lasts the longest. The progress of double pneumonia is slower than that of the simple. The conclusion which seems to result from these details is, that in a child attacked with a primitive lobar hepatisation, the best therapeutics consist in the employment of a good hygiene, and an abstinence from all medication.

The role of the physician will consist in filling some indications, the importance of which, though secondary as regards the termination of the disease, has however some value in the relief of the patient and the attenuation of the symptoms. It is thus that a very small bleeding, local or general, will relieve the pain in the side, and diminish the painful oppression, and will lessen momentarily the febrile action; sometimes an emetic or a purgative will bring about the resolution; at other times these favorable effects will result from a warm bath taken during the full progress of the disease.—*Translated by Editor of Cincinnati Lancet and Observer.*

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OCCLUSION OF THE OS UTERI IMPEDING LABOR.—Dr. Storer, of Boston, saw, in consultation, a woman who had been in labor several days, and in whom no os uteri could be found. The patient had formerly been treated for ulceration of that part, by the repeated application of caustic. Dr. S. made an incision three inches in length into the presenting part of the womb. An hour afterward, there being no pains, he opened the head and delivered the child. The woman recovered, and afterwards menstruated. In a similar case of obliteration, without pregnancy, Dr. J. H. Bennett made an artificial opening, which he kept open by means of elastic bougies introduced from time to time.—*Boston Med. and Surg. Journal.*

On the Value of Urinary Analysis in the Diagnosis and Treatment of Hepatic Disease.

BY GEORGE HARLEY, M. D.
(Professor in University College, London.)

THE author began by saying that, as the practice of medicine is simplified in direct proportion as our means of "physical diagnosis" increase, he was glad to have the opportunity of calling attention to the fact that a knowledge of the condition of the urine is of as great assistance in the diagnosis of affections of the liver as of those of the kidney. Hitherto, the only physical means we possessed of detecting and distinguishing the various forms of hepatic disease did not extend beyond the acquiring a knowledge of the position and size of the liver by percussion, the absence of bile from the stools by inspection, and the presence of biliary pigment in the urine by the application of nitric acid to that secretion. Every one, however, must have met with cases of obscure hepatic disease where these means of research proved totally inadequate to their requirements. This circumstance has led several practitioners to seek further aids to diagnosis in such cases; and consequently, at various times during the last few years, valuable suggestions have fallen from different members of our profession both here and abroad. For example, Dr. Eiselt, of Prague, has called attention to the fact that in cases of melanotic cancer of the liver, the true nature of the affection may be sometimes discovered during life by the presence of melanine in the patient's urine. (A specimen was shown to the members of the Association.) Urine containing melanine, the author said, although of the normal color when first passed, gradually becomes of a dark hue, even as dark as porter, when left for some hours exposed to the air. This change appears to be the result of a slow oxidation of the pigment. In the second place, Frerichs, in his admirable treatise on Diseases of the Liver, states that two substances, tyrosine and leucine, which were formerly only known to the scientific chemist, are invariably to be found in the urine of patients laboring under acute or yellow atrophy of the liver. Dr. Harley said he had been able to verify this statement in the urine of a young married woman, who died from this most fatal form of disease. Dr. Wilks, he stated, had brought the case under the notice of the Pathological Society, and a report of it would be found in the "Transactions." Dr. Harley mentioned an interesting case of chronic atrophy of the liver, the result of obstruction from disease of the pancreas, in the urine of which he found both tyrosine and leucine. He had seen the gentleman several times along with Mr. Prance, and they noticed that as the disease advanced the quantity of the abnormal ingredients increased. After death, crystals of tyrosine were found in the liver. Dr. Harley recommended that in all cases of obscure hepatic disease these substances should be looked for; and said that in the majority of cases they were readily detected in the concentrated urine by means of the microscope. The tyrosine appears as needles and little stars; the leucine as round yellow balls, some of which are occasionally spiculated.

The author next proceeded to direct attention to the method he had recently laid before the profession of distinguishing between jaundice arising from suppression and jaundice the result of obstruction—two forms of disease so ably described by Dr. Budd. As the treatment of jaundice from suppression ought to be very different from that adopted in jaundice from obstruction, it is of essential importance to be able to distinguish the one from the other. After alluding to the great differences of opinion that have hitherto existed regarding the presence of the biliary acids in the renal secretion in cases of hepatic disease, the author pointed out how the discrepancies arose from the fact that sufficient attention had not been paid to the kind of jaundice under which the patient labored. He said he believed that where bile acids occurred in the urine in any quantity, their presence might be regarded as a certain sign of the existence of some obstruction in the course or at the termination of the common bile duct. Dr. Harley then proceeded to demonstrate, by experiment, how easy it is to detect the bile acids in the urine by means of strong sulphuric acid and a small piece of white sugar. The sulphuric acid was so added as not to mix with the urine; the sugar floated at their line of contact, and after some minutes assumed a purple hue. In the urine containing no bile acids the sugar was simply browned.

Dr. Thudichum said, the author had ascribed the doctrine he had propounded to Prof. Frerichs. He, however, only watched the patients clinically; it was another physiologist who made the examinations, and discovered tyrosine and leucine. The disease in question was dogmatically called atrophy, but he (Dr. Thudichum) as dogmatically objected to that term, for he had seen cases where the liver was certainly enlarged about one-third its ordinary size; and in one case, brought under his notice by Dr. Richardson, it was doubled in size. In some cases, so far from the liver being atrophied, it was hypertrophied. An excellent test was to put a drachm of the solution of the nitrate of mercury to the urine; the urine being then boiled, the white precipitate produced would be transformed into a dark purple color, and the solution itself would assume a partly purple color.—*London Lancet.*

ILIAC ANEURISM.—Professor Syme, of Edinburgh, recently remedied a case of iliac aneurism by opening the sac and tying the common iliac and both the external and internal iliacs. A screw clamp of peculiar construction, provided by Professor Lister, of Glasgow, was employed to effect compression of the abdominal aorta, and when this was complete the sac was opened through all the textures concerned, by a free incision, and about six pounds of blood and clots scooped out. The ligatures separated on the nineteenth day, everything having progressed in the most favorable manner. It may be remarked that the ligatures were applied close to the sac—Prof. Syme observing that it was no more likely that the artery was diseased near to than remote from the rupture. This bold and decisive assertion, justified in its successful result, was strongly urged by Prof. S. as negativing Hunter's supposed universal rule—as for example, in axillary aneurism, where the vessel is easily reached at the point of rupture, and with great difficulty, as well as danger, tied above the clavicle. The modification of practice in such cases is altogether analogous to Mr. Guthrie's ligation of arteries at the part wounded rather than at a distance on the proximal course.—*Chicago Med. Journal.*

MEDICAL HONOR.—M. Claude Bernard, Professor of Medicine at the Imperial College of France, and Professor of General Physiology at the Faculty of Sciences of Paris, has been promoted to the rank of Officer of the Legion of Honor.

Radical Cure of Varicose Veins of the Leg.—Mr. Joliffe Tufnell related to the Surgical Society of Ireland (Dec. 14, 1861) the details of a case of varix of the saphena vein upon which he had lately operated in the manner recommended by Mr. Wood of King's College, London, and with the pin introduced by him for this purpose. The termination of this case was successful, but the amount of inflammatory action produced was such as to render the proceeding hazardous, and its progress one of anxiety for many days.

Professor Hargrave stated that he had for many years looked upon operations on the saphena vein as most questionable. It was ascertained that the operative interference did not lead to a permanent cure. It might, and did heal for a time, but the disease afterwards returns. Many years ago, so far back as the time of the old Meath Hospital, he directed his attention to the operative surgery of the veins, and recollected that Mr. Hewson, an excellent practical surgeon, was most unwilling to introduce it into this country. He believed Sir B. Brodie recommended a subcutaneous division of the veins by means of a very simple convex knife. Two or three of the operations performed by Mr. Hewson were successful, but in three or four other cases diffuse inflammation of the vein set in, and the patient sunk under it. The result produced an impression on his mind that had never left it, and with regard to varicose veins, he would much rather "bear the ills he had, than fly to others he knew not of." As to the case which had been so well brought forward by Mr. Tufnell, the man was for some days in a very perilous position. He never saw a man before in a more intense rigor. He believed he was the first to recommend for varices a garter made of India-rubber, and had seen it most successful in the case of females suffering from varicose veins. The veins became perfectly healthy.

Dr. Beatty would not have risen were it not that he was desirous of bearing his testimony to the efficacy of the garter recommended by Professor Hargrave many years ago. It consisted of a strong band of vulcanized India-rubber an inch broad. It was pulled on over the feet, and made so tight as to cause a firm pressure on the veins. He had many opportunities of seeing it used by females suffering from varicose veins, and in every case with the most perfect success. He had seen it worn both above and below the knee. With reference to the operation of Sir B. Brodie, he had seen it performed in two cases by the late Mr. Carmichael in the Richmond Hospital, and both patients died.—*Dublin Medical Press.*

Glycerole of Tar (Tar Plasma).—A combination of glycerine and tar has been used recently in skin affections instead of the tar ointment of the Pharmacopœia. The advantages seem to be that glycerine compound is more readily absorbed, and less difficult to remove by washing. Mr. Brady states that he has not been able to find a formula for the preparation in question, neither can he learn that any published one exists, and would, therefore propose the following, as yielding an unexceptionable product. The strength is the same as that of the unguentum picis liquidum, P. L.: Price's glycerine, six oz. weight; tar, six oz. weight; powdered starch, two drachms. Warm the glycerine, stir in the starch, add the tar, and raise the mixture rapidly to the boiling point. Strain through a cloth, if necessary, and stir while cooling. The mere mixture of glycerine and tar heated in a water-bath, gives on cooling a spongy mass, the pores of which are filled with glycerine; after standing some time, complete separation takes place. Tragacanth, acacia, soft soap, and many other things have been tried as substitutes for the starch, but none of them with so good result. Made according to the above formula, glycerole of tar is of a dark brown mass, perfectly smooth, in consistence somewhat softer than the ointment.—*Dublin Medical Press,* from *Pharm. Journal.*

A Case of Gangrene of the Throat.

BY W. H. STUDLEY, M.D., U.S.A.

In a recent issue of the *Medical Times*, an interesting article appears, describing a peculiar disease which the writer terms "*Gangrene of the Throat.*" Within a short time a case of sickness, resulting in death, occurred in hospital at this post, bearing in some respects so close a resemblance, that it may not be altogether unprofitable to give it publicity.

Charles Perkins, aged 21, born in New York State, and enlisted as a soldier since August last, appeared on the sick list towards the last of October. His symptoms were those of common remittent fever, and he was treated in the usual manner for such. The treatment met with no favorable response. The disease soon assumed the form, more or less, of continued fever, and at last put on the more striking characteristics of genuine typhus: dry, blackish-brown tongue, teeth covered with sordes, persistent stupor, inability or disinclination to answer questions, more or less confined bowels, absence of tympanitis, amd the characteristic dark spots of the skin. In this stage of the disease, he was put upon quinine, brandy and chlorate of potash, and supported with beef-tea, egg-nog, etc. Within the short space four or five days, all the worst symptoms disappeared. The patient began to call for food, conversed freely, and even, though unadvisedly, sat up. He continued to improve for a few days, when, one morning, he complained of a little soreness of the throat. It being damp weather, and the windows having been left open by the attendants longer than they should have been, the inference was that it was the effect of exposure to the cold damp air. Slight fever and considerable debility now supervened, with loss of appetite. He kept his bed, and gave evidence of a general relapse. But little was done for his throat, for the reason that it was lightly complained of, but for the more serious constitutional symptoms the former supporting treatment was again resorted to. Within three days of his first complaint of his throat, I found him in my morning visitation breathing very laboriously, like one with croup, every inspiration giving a loud noise similar to that produced in hooping-cough paroxysm, and hawking up freely a stringy, viscid mucus. His pulse was now considerably quicker and fuller than natural, and he wore an anxious countenance. I got him up in a chair, and with a tongue spatula explored the fauces, found the left tonsil a little swollen, and just anterior to and below it, a bulging, semi-transparent bag. I introduced a sharp-pointed bistoury, and made several cuts which were followed by slight bleeding. I then passed my finger down the throat, found the epiglottis very œdematous, as also the parts above the chords. I then, for want of a better instrument, took a common gum lancet, and first passing the index finger of my right hand down to and over the epiglottis, with my left passed the lancet down flatwise as far as I could, and then turning it and flexing the handle, was enabled to reach the diseased parts, in which I made about six or eight gashes. Pretty free bleeding followed, with some vomiting, produced by the gagging operation, and in a few minutes the patient expressed himself greatly relieved.

I then ordered the following:—℞ Ammoniæ muriatis ʒss; potassæ chloratis ʒss; acaciæ gum. ʒj; Syrupis symplicis ℥iv; aquæ ℥xij. Misce.

S. One tablespoonful every half hour.

I visited him during the evening of the same day, and found him quite comfortable, so far as his breathing was concerned, though a hurried pulse, quick breathing, and a disposition to toss about in bed, indicated mischief somewhere. Next morning, about four o'clock, he expired—whether from exhaustion or suffocation I was unable to determine, from the imperfect account given by the attendants.

Autopsy thirty hours after death. None of the abdominal or thoracic viscera gave evidence of lesion. There was none in the œsophagus or trachea. But on opening the larynx, the parts on its left, beginning with the ventricle and including it, embracing the whole arytæno-epiglottidean fold, the left side and top of the epiglottis, and a narrow strip of mucous membrane, extending up to the left tonsil, presented a blackish-green swollen mass. Cutting into it in several places, revealed this discoloration to the depth of one-fourth to one-third of an inch. There appeared no ulceration, but, on the contrary, the mucous membrane seemed entire, with the exception of the cuts made by the gum-lancet.

With this description of the case, I leave it for each one to name the disease according to his fancy.

EXCISION OF JOINTS.—In a paper read before the Royal Medical and Chirurgical Society, by Dr. G. M. Humphrey, on the influence of Paralysis, Dislocation of Joints, &c., on the growth of bones, we find the following conclusion, among others, of practical interest:

Excision of the knee, if the epiphysial lines are removed, is followed by marked arrest of growth in all parts of the limb. If the epiphysial lines are spared, the growth in most instances, keeps pace with that of the opposite limb." Preceding diseases, or invasion of the epiphysial lines by the suppurating process may modify this statement. Nevertheless, the fact is so constant that every effort should be made to spare these lines, so that the limb, especially in young and growing subjects, may reach its maximum of perfection. In some instances the possibility or impossibility of choice in this respect may determine the selection between exsection and amputation.

During the discussion of this paper before the Society, Mr. Barwell and others adduced cases where local abscess had destroyed the epiphysial lines, resulting in permanent loss of elongated growth in the bone. Paralysis, rochylosis, &c., probably diminish the growth of the bone and soft parts by the loss of exercise involved.—*Chicago Medical Journal.*

M. BECQUET makes use of the following preparation to produce insensibility of the dental nerve in cases of caries:

Arsenic, - - - -	**1 part.**
Morphine, - - - -	**2 parts.**
Creosote, - - - -	**9. s.—Mix.**

This paste is introduced into the decayed tooth, which must have been thoroughly cleansed, and it is covered with mastic.

Permament insensibility of the nerve is produced in twenty-four hours. (*l'Art Dentaire*, Nov. 1862.)

ORIGINAL PAPERS.

Foreign Body in the Trachea.

BY F. W. HATCH, M. D., SACRAMENTO.

On the 7th Nov. 1862, Mr. C., residing near Sacramento, brought his little boy, a fine healthy child about four years of age, to this city for the purpose of having a water-melon seed removed from the trachea.

The history given was, that about five weeks previously, the child while eating a water-melon, was suddenly seized with a violent attack of coughing and a difficulty of breathing, threatening instant asphyxia. Upon recovering from this attack, he stated in answer to interrogations from his mother, that he had swallowed a seed—that he felt it distinctly in his throat. This immediate paroxysm passing off, nothing more was thought of it until night, when the child was again seized with violent coughing and dyspnœa. This occurred almost regularly at night, for sometime, eliciting various expedients, such as the parents and immediate friends could suggest for its relief.

The child was playful and cheerful, but appeared for the last week or more to be troubled with an irritable cough, with transient febrile paroxysms. The nocturnal attacks of violent coughing and dyspnœa were now less distressing.

Becoming alarmed lest serious evil should result, Mr. C. brought the child in to me for an operation.

In company with Drs. Morse and Logan, I visited the little patient, and after careful examination, it was our opinion that the seed was still in the trachea, but that the inconvenience then resulting was insufficient to justify an immediate operation for its removal. By the stethescopic signs, it was judged to be lodged pretty low in the left bronchus. The child was in apparently good health, and seemed to suffer but trivial irritation from the presence of the obstruction.

We therefore advised delay, until some more urgent indications should exist, and that in the meantime a teaspoonful of a simple anodyne and expectorant mixture should be given three or four times daily. Following the innocent and temporizing advice contained in Velpeau's Surgery, there was also directed a teaspoonful of olive oil, to be administered whenever the paroxysms of coughing should return. Of this expedient, the editor of the American edition of M. Velpeau's Surgery, says: "Where patients or parents will not submit to an operation, and where the danger is not imminent, we are thus at least furnished with a temporary resource of great value." Vol III, page 481. It certainly can do no harm. Mr. C. was cautioned to bring the child in at any time when the threatening character of the symptoms should require. Two weeks after this, I was gratified to learn that the seed had been expelled. It was forcibly ejected during a violent attack of coughing.

The case I regard as not without interest to the profession, as demonstrating the slight inconvenience which may occasionally result from the long continued presence of a foreign body in the trachea. That there was some risk in the experiment of delay, is doubtless true, and the weight of authority is certainly against it.

"As soon as the presence of one of these objects in the respiratory passages is clearly established," says one of the best surgical authorities, "we are justified, unless we can reach it through the mouth, by means of the fingers or forceps, in calling to our aid the resources of bronchotomy." To the same effect is the advice of most writers upon the subject.

Yet, in almost all surgical treatises, we find cases recorded in which nature unaided had succeeded in removing the obstruction. Thus, "a lead-pencil, an inch and a half long, was ejected after the lapse of six years;" also, "a cherry-nut which was thrown out in a paroxysm of coughing, after having remained two and a half months in the trachea." Again, it is related of a young child, that a bean remained for forty days in its larynx, and was finally expelled by the efforts of the child itself. To these may be added the case of the man who swallowed a half-sovereign, which was finally expelled by coughing, Braithwaite's Retrospect, No. 32, page 144; and that of another, who succeeded in ejecting a half-sovereign after two unsuccessful attempts had been made by Sir Benjamin Brodie to extract it from the bronchus by operation. Ibid No. 30, page 133. Many other instances might be referred to of the spontaneous expulsion of foreign bodies from the air passages. The above may suffice for present purposes.

Without designing to adduce these, or the one which is the subject of this article, as a pretext for dispensing with an operation in other cases where danger is more imminent, and the indications for active surgical interference are more urgent, they are worthy of mention as affording a gratifying evidence of the conservative efficacy of nature in the most severe and trying extremities. In the present case, the mildness of the symptoms, the absence of any serious constitutional disturbance, and the belief that the seed was located so far down in the bronchus as to make its removal difficult and hazardous, seemed to warrant delay. The latter circumstance, indeed, afforded the strongest justification. Apart from the inherent difficulties of the extraction of a foreign body when securely lodged in the bronchus, the many recorded instances of unsuccessful operations and explorations in similar cases only increased our hesitancy to interfere until decisive action should be imperatively demanded. The instance above mentioned of a futile attempt to extract a half-sovereign by Brodie is directly in point. I have before me, indeed, reports of numerous cases in which unsuccessful efforts were made by different surgeons to remove bodies impacted in the bronchus; among them two where tracheotomy was performed for the removal of a piece of iron nail from the right bronchus. In both, the operators were compelled to desist, yet in one case the nail was expelled by coughing, nine days after the closure of the wound; and in the other, in thirty-two days subsequently. See Eve's Surgical Cases, pages 178–81.

That the seed was in the present case in the left bronchus was the concurrent opinion of the medical gentlemen present, based upon the stethescopic signs. The patient was so situated that surgical relief could at any time be speedily obtained.

It will be observed from the history of this case that the seed remained in the trachea of the child about six weeks. Since its expulsion the bronchial irritation has rapidly subsided, and the little boy has regained his usual health.

Cases of Spontaneous Salivation.

BY V. J. FOURGEAUD, M. D.

MR. D., a ranch owner of Sacramento county, applied to me for advice on the 22d of October, 1862.

Mr. D., who is in the prime of life, æt. 35, has generally enjoyed excellent health, and had not taken medicines of any description for a long period. He had not been exposed to the action of mercury, nor had he taken any of the preparations of gold, copper, antimony, arsenic, iodine, or any other substance capable of producing salivation.

Upon examination, I found the gentleman suffering from profuse and continual ptyalism. The tongue and salivary glands were enormously swollen, especially the sub-lingual and sub-maxillary. The tumefaction blocked up the mouth and rendered it impossible to see into the pharyngeal cavity.

The mucous membrane of the mouth, lying over the sub-lingual glands, was raised to a level with the edges of the teeth of the lower maxillary. The tongue had lost its flattened shape and presented anteriorly a spherical appearance. The saliva was constantly trickling from the half-opened mouth, and allowed no rest to the patient; for, as soon as he began to doze, he was awakened by a sensation of suffocation, caused by an accumulation of the excretion in the pharyngeal cavity and under the epiglottis, preventing the function of respiration.

The swelling, which had extended to the parotid glands, and probably to the Eustachian tubes, prevented the patient from hearing, except when spoken to in loud tones. Mastication was impossible, and speech exceedingly difficult, articulation being very much impeded by the condition of the parts.

However, I was made to understand that the patient had been first attacked with these symptoms some ten days before; that he had consulted several physicians who had pronounced his case one of mercurial salivation, which seemed to him impossible, inasmuch as he had not taken or used any mercurial preparation, nor had he been exposed to the vapors of cinnabar, etc.

Having met with a similar case about two years before, I was able to assure the patient that mercury had nothing to do with his condition. This opinion, given without hesitation, was based on a differential diagnosis, which is important to notice, because I am not aware that it has been hitherto stated by writers on the subject.

In the cases of spontaneous salivation, which fell under my observation, the upper gums were not at all swollen, and the lower, though much tumefied posteriorly (from the sub-lingual glands) were not much so anteriorly. They were not painful to the touch, the teeth were firm in their alveoli and surrounding tissue, and the whitish secretion adhering to the edges of the gums around the teeth, which always accompanies mercurial salivation, was absent. The gums and buccal membrane were free from ulceration. There was a certain fetor from the breath, but very different and far less disagreeable than the peculiar, strong and sickening odor observed in mercurial ptyalism.

Relying on the absence of these symptoms, I unhesitatingly pronounced the case as not having a mercurial origin.

The patient experienced great difficulty in swallowing, which led him to think that the salivation might have some connection with tumefaction of the tonsils and ulcerated sore-throat. It being impossible to make an ocular examination of the pharyngeal cavity, I proceeded with great difficulty to make a digital exploration of the parts. This was done several times with much care and minuteness. The tumefied condition of the tongue occasioned much pain during the passage of the finger into the posterior cavity: it being swollen to the root and the epiglottis hard and erected. There was but a moderate tumefaction of the tonsils, and I could not discover the slightest sign of abrasion, ulceration or of false membranes in the pharyngeal cavity, within the reach of the finger. These parts, as far as I could judge, were in a normal condition. But there was some tumefaction on both sides of the inner surface of the cheeks, in the region of Steno's ducts, and extending back to the parotids. By depressing the tongue, a thick, yellowish coating was observed. The expression of the face denoted suffering and debility, the pulse was feverish and irritable, the bowels were constipated, and the urine was scant and high-colored.

Considering the salivation, if not dependent on, at least coinciding with, a disordered state of the stomach, I prescribed the following:

℞ Hydrarg. Chlor. Mit. gr. viij.
Pulv. Jalapæ gr. x.
Misce. Signa.

To be taken immediately in a little syrup, and to be followed six hours after by:—

℞ Liq. Magnes. Citrat. ℥xij.

Warm fomentations with hops around the neck and lower maxillary. Sinapisms to the lower extremities. The patient was directed to inhale frequently the vapor from the following infusion through the spout of a common tea-pot:

℞ Papaveris Cap. Cont.,
Flor: Althææ, *a a* ʒiij.
Aquæ bullientis ℥xij.

To be renewed as often as necessary.

Oct. 23d. Mr. D. has passed a much more comfortable night than he has done for some time. He expressed himself as having experienced much relief from the fomentations and inhalations; however, the ptyalism was still so profuse as to prevent sleep.

The same treatment was continued with the addition of:—

℞ Potass. Chlorat. ℈ij.
Aquæ ℥iv.
M. Signa.

A tablespoonful to be taken every three hours.

Oct. 24. The condition of the patient is evidently greatly improved. He has slept several hours during the past night. The salivation is on the decrease. The tumefaction of the parts has diminished. The bowels have acted well under the purgatives administered. Continue treatment.

Oct. 26th. Patient convalescent.

During the month of January, 1861, I was called upon to attend a little girl, five years old, who had been until then residing on a farm in the country.

The child had been suddenly taken with a tumefaction of the salivary glands, and in a few days the swelling of the sub-lingual, sub-maxillary and parotid glands, as well as that of the tongue, became so great, and the salivation so profuse, that respiration and deglutition were exceedingly laborious and difficult. The parents, much alarmed, brought the child to the city for advice.

The tumefaction of the glands was greater than is generally observed in mercurial ptyalism. The case presented the same symptoms as that of Mr. D. The gums of the upper maxillary were not swollen, and tumefaction existed only on the posterior surface of the gums of the lower maxillary. The teeth were firm in their alveoli, and the breath had not the peculiar fetor attending mercurial salivation. No abrasion nor ulceration.

I was informed that the child, who, until then, had enjoyed excellent health, had never taken a dose of mercury, nor had she been exposed in any way to the action of the substance.

Although this was the first case of spontaneous salivation which had fallen under my observation, the absence of certain symptoms, always accompanying mercurial ptyalism, convinced me that this agent had nothing to do with the salivation.

Acting under this conviction, I adopted a course of treatment very similar to the one already described in the case of Mr. D., viz: I administered purgative doses of Hydrarg. Chlor. mit. and Pulv. Rhei, followed by Oleum Ricini; placed the child under the inhalation of the vapor from an infusion of poppies and marshmallow; enveloped the neck and lower part of the face with fomentations of hops, and ordered mustard foot-baths.

Under a few days of this treatment, the tumefaction and ptyalism entirely disappeared.

I felt so well satisfied that these cases were absolutely independent of mercurial intoxication, that I did not fear to administer mercurial purgatives in a moderate degree. The promptness with which the salivation disappeared under the treatment, fully sustained the correctness of the diagnosis.

Dr. Watson, in his work on Practice, has devoted a page or two to the subject, to which we refer the reader (pp. 481, 482, Am. Ed. 1857). Dr. W. says, however, that the fetor attending these idiopathic or spontaneous cases can scarcely be distinguished from mercurial salivation. In the two cases observed by myself, the distinction in this respect was very great. There was a certain fetor, but it was very different, and much less offensive, than that emanating from the breath in mercurial ptyalism. Dr. Watson mentions a case of spontaneous salivation seen by himself, and confirms my observation in the following remark:—"When I saw her she was spitting three pints of saliva in twelve hours; transparent, rather dark-colored, and with a small quantity of foam on its surface. *There was nothing amiss with her teeth or her gums, and no fetor of the breath.*"

In the spring of 1694 an extensive and violent epidemic of spontaneous salivation occurred in Germany. In certain localities but few persons escaped, and the Princess Saxe-Mersebourg died a victim of the disease.

The epidemic was not confined to the human race, but dogs and other animals were affected. According to Westphall the patients spat during four days a thin and watery saliva; on the fifth day, the mouth, the tongue and throat became greatly tumefied, and an incessant salivation occurred, which lasted seven or eight days. There was no ulceration attending it, as in severe cases of mercurial salivation.

* * *

DISEASES OF THE HEART IN AUSTRALIA.—Inflammation of the pericardium is more common in the colony than in England, and the deaths are more numerous. Thus about 1 in every 359 deaths which ensued in Melbourne during twelve months was from this disease while in London it only amounted to only 1 out of every 532 of the deaths, and in England to only 1 out of every 532 of the deaths, and in England to only 1 out of every 889. Aneurism, again, is both more frequent and more fatal in the colony than in England. The deaths in Melbourne in twelve months from this disease were 26 out of 3,593 deaths from all causes—about 1 in 138; while in London the number was only 68 out 59,103 of the deaths from all causes—about 1 in 869; while in England the deaths were 321 out of 419,865 of the deaths from all causes—about 1 in 1,349.—*Medical Record.*

U. S. Marine Hospital Reports.

BY JOHN HASTINGS, M. D.

We have been kindly furnished with the following statistics by Dr. John Hastings, Physician and Surgeon to the United States Marine Hospital:

TABLE OF DEATHS.

The following table exhibits the number of deaths in this institution from March, 1852, to January, 1863, a period of ten years:

The whole number of patients treated during this time was	13295
Whole number of deaths	565
Greatest number of deaths in one year (1855)	77
Least number of deaths in one year (1862)	38
Average age of patients at time of death (approximation)	26
Greatest age at which any patient died	79
Least age at which any patient died	17
Nativities—Foreigners, 325; Natives of the United States, 240	565

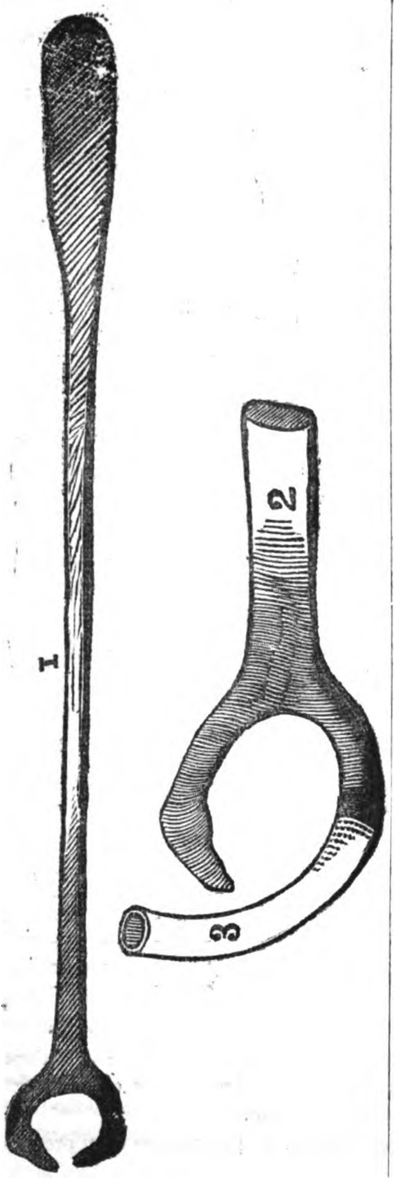
CAUSES OF DEATH.

Phthisis Pulmonalis and Affections of the Lungs	180
Affections of the Bowels, Dysentery, etc.	76
Affections of the Heart, Aneurisms, etc.	43
Affections af the Brain, Apoplexy, etc.	42
Typhoid Fever, Typhoid Pneumonia, Remittent and Coast Fevers	39
Affection of the Urinary and Genital Organs, Ascites, etc.	39
Accidental Deaths from Gunshot Wounds, Stabs, Scalds, Fractures of Skull, etc.	30
Hepatitis and Abscess of the Liver	14
Syphilis	13
Delirium Tremens	10
Malignant and Non-malignant Tumors and Cancers	9
Psoas and Lumbar Abscess	6
Scorbutus	5
Erysipelas	5
Small-Pox	4
Asiatic Cholera	10
Yellow Fever	3
Strangulated Hernia	3
Convulsions (cause not stated)	3
Scrofula	3
General Debility and Marasmus	7
Hospital Gangrene	4
Tetanus	1
Causes not recorded	15
Total	565

For the last half-year, the deaths have been: Phthisis, 7; Affections of the Brain, 5; Dysentery, 1; Fracture of Ribs, with Puncture of lung, 1. Total, 13. These are included in the list above.

For the year 1865, the average number of patients per diem prescribed for was 105.

Funis Presentation.—New Instrument.



To the Editor of the Pacific Medical & Surgical Journal.

SIR:—I desire to bring under the notice of the profession a very simple contrivance, made by me some years since, for returning the funis. I have employed it in a large number of cases, and with the most satisfactory results. The instrument is composed of pure gutta-percha, moulded whilst warm into the form of the annexed figure. The shaft is two feet long, compressed on the sides, and terminating in a forked extremity. In using the instrument the funis is placed into the fork (two fingers introduced into the vagina), and loop after loop carried up at the side the funis presents at. In many instances this is all that is requisite; in others, however, the funis comes down again during every succeeding pain, When this is the case, the two prongs are united over the funis by means of a piece of gutta-percha tubing, and the whole passed well up, and left *in situ*, to be expelled with the child. I may here observe that gutta-percha, such as is sold for splints, is of no use whatever. It will afford me much pleasure to show the instrument to any medical gentlemen desirous of seeing it. I feel well assured that this is a most valuable addition to the contents of the "obstetric bag," and will prove, in other hands, as it has in mine, the means of saving many children, and avoiding much unjust obloquy.

Yours truly,
ROBT. K. NUTTALL, M. D.
San Francisco, Dec. 30, 1862.

EXPLANATION OF THE CUT.

No. 1. Shape of instrument.
No. 2. Full size.
No. 3. Piece of gutta-percha tubing.

Editor Pacific Medical and Surgical Journal.

SIR:—The October number of the *American Journal of Medical Sciences* (page 457) quotes many remarkable cases from the reports of the Medical Society of the State of New York, made in its Annual Session for the year 1862. Among the number is the report of a case by Dr. H. S. Downs, of the city of New York, which is published by the society, and circulated by *Hays' Journal* without comment. Consequently, it goes forth with all this authority, to the young members of the profession, many of whom follow blindly such high authorities, and do good or evil as their guides may lead them.

I feel it my duty to call attention to this case, and to condemn the dangerous practice therein described.

Dr. Down's case was Peritonitis in a female child, ten years old. "The patient took, during eleven days of the period of greatest suffering, 148 grains of morphia, one bottle of McMunn's elixir of opium, and half an ounce of Magendie's solution of morphia, besides having 20 grains of morphia sprinkled upon the blistered surface of the abdomen, and a quantity of laudanum and opium given in the form of enemas and suppositories. She also inhaled a considerable amount of chloroform. The largest quantity of morphia taken on any given day, was twenty-eight grains. On another day she took a bottle of McMunn's elixir of opium and twenty-four grains of morphia."

"The cure was effected at the end of about thirty days."

Here we have it gravely stated, that a child ten years old, took in one day *twenty-eight grains of morphia*, which are equal to *one hundred and sixty-eight grains of opium.*

I ask your opinion of this case, Mr. Editor, and hope that, at least, one journal of respectability and influence, in our country, may condemn such experimental madness.

Truly yours, JOHN HASTINGS, M.D.

San Francisco, January 5th, 1863.

[There can be but one opinion among sensible men respecting the extraordinary temerity exhibited in the case commented on by our esteemed correspondent. It is this wild abuse of remedial agents which tends more than anything else to bring reproach upon our profession, and give life to homeopathy. In the case reported, there is only one thing that excites surprise, viz: that the child survived the blind use of the powerful narcotics, said to have been administered in a few days, in quantities sufficient to have lasted a month under ordinary circumstances, in a well-regulated hospital of one hundred patients.—ED.]

BIBLIOGRAPHICAL NOTICES.

THE ACTION OF MEDICINES ON THE SYSTEM: or "On the mode in which therapeutic agents introduced into the system produce their peculiar effects on the animal economy." Being the prize essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1852. By Frederick William Headland, M. D., B.A.F.L.S., Licentiate of the Royal College of Physicians, etc., etc. Fourth American Edition, pp. 458. Philadelphia: Lindsay & Blakistone. 1863. For sale by Roman & Co., Nos. 417 and 419 Montgomery street, San Francisco.

WE welcome with pleasure a new edition of Dr. Headland's remarkable work on the action of medicines in the system. The present publication of a fourth edition, the three first having been rapidly exhausted, shows that the labors of the author are fully appreciated by the profession. The Essay before us is too well known to require much comment on our part. An inquiry into the *modus operandi* of medicines is a subject full of difficulties. From time immemorial various and totally different theories have been held respecting the manner in which medicines produce their physiological and therapeutical effects.

The history of medicine contains a countless number of doctrines on this subject, destitute of all foundation in observation and experience, and their originators have never been at a loss for evidence in favor of their peculiar views.

Thus it was with Galen, Paracelsus, Van Helmont, Brown, Broussais, and other systematists, who, in order to sustain their *a priori* doctrines, collected only such facts as would confirm their opinions, whilst all other facts, having an opposite tendency, were carefully discarded.

The natural propensity of ambitious minds to theorize, and their anxiety to establish their particular dogmas as the *ne plus ultra* in our science, led to the different systems of the Rational School.

On the other hand, the vagaries of the Rationalists gave rise, from the earliest periods of our science, to opposite doctrines, which, (like the numerical system of our day, applied to medicines, *without the intervention of reason*,) maintained that reason was an unsafe guide in medicine, and that the science should be merely one of experience. In other words, according to the empirical system, if "by accident, or by experience it is found that a certain medicine is of use in the treatment of a certain disorder, it is henceforth administered in that disorder; and on a number of such empirical data, an empirical system is constructed." It demands no great effort of intelligence, no large amount of knowledge for its application. Therefore it it is that quacks, from time immemorial, have looked upon this school as their *Alma Mater*.

This method is, however, entirely insufficient in a science as complicated as ours. The exercise of reason is indispensable in every science, and cannot be proscribed in medicine. But, as Sydenham observes, "The only reasoning employed should be simple and natural, that which is furnished by sound sense, and which is the immediate consequence of facts observed." We, therefore, fully appreciate the following remarks of our author:—

"Now this observation of facts is indispensable as a beginning, but something more is required. We must not be satisfied with taking them separately, but we must proceed to compare together a large number of facts, and draw inferences from this comparison. And our plan of treatment will become rational, when, on the one hand, from all accurate knowledge of the symptoms of diseases, we are better enabled to meet each by its appropriate remedy; and on the other hand, from some acquaintance with the general action of a medicine, we are fitted to wield it with more skill and effect, and to apply it even in cases where it has not yet been proved beneficial.* Thus, for the proper perfection of medicine, as a rational science, two things are in the main needed; the first is a right understanding of the causes and symptoms of disease; the second, a correct knowledge of the action of medicines. Should our acquaintance with these two subjects be complete, we should then be able to do all that man could by any possibility effect in the alleviation of human suffering. This sublime problem is already being unraveled at one end. Diagnosis and Nosology are making rapid strides; and perhaps we shall soon know what we have to cure. But the other end of our medical system is in a less satisfactory condition; and though some impatient men have essayed, as it were, to cut the Gordian knot, and have declared boldly on subjects of which they are ignorant, yet it must be confessed, that in the understanding of the action of medicines, and of their agency in the cure of diseases, we do not so much excel our ancestors. While other sciences are moving, and other inquiries progressing fast, this subject, so momentous in its applications, has, in spite of the earnest labors of a few talented investigators, made after all but small progress. Let those who feel this want bestir themselves to remove it, and it will soon be done. Those doubts and difficulties, which are now slowly clearing away before the efforts of a few, will then be finally dispelled by the united energies of all; and instead of our present indecision and uncertainty on many points, we shall find ourselves eminently qualified to wage the conflict with disease, being skilled in that science whose name bespeaks its peculiar importance, the science of *Therapeutics*."

The great merit of the work before us consists in the accurate knowledge on which the author has based his arguments. He has fully availed himself of the present advanced state of our science to explain the action of medicaments. The method adopted to illustrate his views is strictly logical, and his experiments interesting and instructive. The book, which we take pleasure in commending, is written in a clear and careful manner, and shows extensive knowledge of the literature of the subject.

After a few introductory remarks, and a chapter on some of the more important classifications of medicines, and the opinions of writers respecting their action, the author illustrates the general mode of action of therapeutic agents introduced into the stomach in the following propositions:

I.—That the great majority of medicines must obtain entry into the blood or internal fluids of the body, before their action can be manifested.

II.—That the great majority of medicines are capable of solution in the gastric or intestinal secretions, and pass without material change, by a process of absorption, through the coats of the stomach and intestines, to enter the capillaries of the Portal system of veins.

III.—That those medicines which are completely insoluble in water, and in the gastric and intestinal juices, cannot gain entrance into the circulation.

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* If experience is not directed by theory, it is blind."—*Bacon.*

IV.—That some few remedial agents act locally on the mucous surface, either before absorption, or without being absorbed at all. That they are chiefly as follows:—Irritant Emetics; Irritant Cathartics; Superficial Stimulants, Sedatives, Astringents.

V.—That the medicine, when in the blood, must permeate the mass of the circulation, so far as may be required to reach the parts on which it tends to act. That there are two possible exceptions to this rule: The production of sensation or pain at a distant point. The production of muscular contraction at a distant point.

VI.—That while in the blood the medicine may undergo changes, which in some cases may, in other may not, affect its influence. That these changes may be:—Of Combination; of Reconstruction; of Decomposition.

VII.—That the first class of medicines, called Hæmatics, act while in the blood, which they influence. That their action is permanent. 1. That of these some, called Restoratives, act by supplying, or causing to be supplied, a material wanting, and may remain in the blood. 2. That others, called Catalytics, act so as to counteract a morbid material or process; and must pass out of the body.

VIII.—That a second class of medicines, called Neurotics, act by passing from the blood to the nerves or nerve-centres, which they influence. That they are transitory in action. 1. That of these some, called Stimulants, act so as to exalt nervous force, in general or in particular. 2. That others, called Narcotics, act so as first to exalt nervous force, and then depress it, and have also special influence on the intellectual part of the brain. 3. That others again, called Sedatives, act so as to depress nervous force, in general or in particular.

IX.—That a third class of medicines, called Astringents, act by passing from the blood to muscular fibre, which they excite to contraction.

X.—That a fourth class of medicines, called Eliminatives, act by passing out of the blood through the glands, which they excite to the performance of their functions.

A chapter on the action of some of the more important medicines in particular, terminates the volume.

A PRACTICAL TREATISE ON DENTAL MEDICINE. By Thos. E. Bond, M.D.

This valuable work, which has reached its third edition, has been placed on our table by Messrs. Roman & Co. Want of space compels us reluctantly to postpose to our next number a more extended notice.

EDITOR'S TABLE.

Pultaceous Exudations and False Membranes.

THERE is perhaps no error which is oftener committed in affections of the throat than that of mistaking the soft, whitish and caseiform exudations, which are observed on the tonsils and pharynx in a variety of diseases, for real false membrane. In scarlatina anginosa, for example, it is only exceptionally that these exudations assume the membraneous form; they are generally much softer, more easily indented, and much less adherent than the pseudo-membraneous patches of true diphtheria.

These distinctive characteristics, on which we have insisted since 1856, are properly noticed by Dr. Hillier, physician to the Hospital for Sick Children, in a recent clinical lecture on Scarlatina, published in the *Medical News and Library*. Describing the condition of the throat in that disease, he says:—

> "The *throat* exhibits at first a bright red color, with minute papular elevations on the soft palate; the tonsils, uvula, and soft palate usually become swollen, and in scarlatina anginosa, the color is more dusky, and patches of exudation are commonly seen on the tonsils of a dirty white, yellowish or ash color. The patches are soft, and may be readily detached with a blunt instrument; they are much less tenacious and adherent than the false membrane of diphtheria."

In cases of tonsilitis dependent on gastric disorders, whitish exudations, sometimes of considerable thickness, but soft and caseiform, are observed. In applying the probang firmly to the parts, considerable portions adhere to it, and not unfrequently the whole mass is brought away. As long as the throat continues inflamed, and the cause of irritation is not corrected, the exudations may, after being removed, continue to reappear. These affections are not unfrequently attended with considerable tumefaction of the sub-maxillary glands; seldom, however, to as great a degree as is observed in diphtheria. In such cases, which are often mistaken for diphtheria, we have found emeto-cathartics sufficient.

Mortality of Sacramento during the Year 1862.

WE make the following abstract from the valuable annual table of necrology of Sacramento, arranged according to the classification recommended by the American Medical Association, by Thomas M. Logan, M.D:

DISEASES AND CAUSES OF DEATH.

I. CLASS.—Zymotics—Diseases which are epidemic, endemic or contagious: Diarrhea, 10; Diphtheria, 10; Dysentery, 8; Erysipelas, 8; Fever (continued, including typhus), 15; Measles, 4; Scarlatina, 9; Small Pox, 8. Total, 72.

II. CLASS.—Diseases of general, uncertain and unlocalized seat: Abscess, 4; Cancer, 2; Debility (general), 2; Debility from premature birth (including infantile, etc.), 13; Dropsy, 5; Marasmus (tabes mesenterica), 3; Mortification, 1; Scrofula, 2. Total, 32.

III. CLASS.—Diseases of the Nervous System; Apoplexy, 1; Cephalitis, Meningitis and Phrenitis, 9; Convulsions, (including puerperal), 12; Delirium Tremens, 1; Epilepsy, 4; Hydrocephalus, 8; Nervous Organs, disease of (including brain disease, congestion of, softening of), 18; Paralysis, 5; Tetanus, 1. Total, 58.

IV. CLASS.—Disease of the Respiratory System: Bronchitis, 4; Consumption, 32; Croup, 7; Laryngitis, 7; Lungs, disease of (including congestion, hemorrhage and asthma), 6; Pneumonia, 21. Total, 77.

V. CLASS.—Diseases of the Circulatory System: Heart, disease of, 4; Pericarditis, 3; Aneurism, 1. Total, 8.

VI. CLASS.—Disease of the Digestive System: Bowels, disease of (including congestion, constipation, ulceration, hemorrhoids and cholera), 2; Enteritis, 11; Gastritis, 3; Hepatitis, 3; Jaundice (including deterus infantile), 2; Liver, disease of, 5; Peritonitis, 4. Total, 30.

VII. CLASS.—Diseases of the Urinary System: Kidneys, disease of, 2. Total, 2.

VIII. Class.—Disease of the Genitive System: Uterus, disease of, 1. Total, 1.

XI. Class.—Old Age, 2. Total, 2.

XII. Class.—From External Causes: Accidents (fractures, falls, etc.), 7; Burns and Scalds, 3; Drowned, 13; Intemperance, 2; Suicide, 4; Wounds, 9. Total, 38.

XIII. Class.—Causes not stated, including those dying suddenly, and no cause known, 17. Total, 17.

XIV. Class.—Stillborn, 15. Grand total, 353. There were no cases of death in Classes IX and X.

The proportion of mortality for each month during the year was:

January, 34; February, 33; March, 33; April, 24; May, 29; June, 23; July, 36; August, 23; September, 22; October, 34; November, 34; December, 25.

Of the total number of deaths, 239 were males, and 114 females. 169 were born in California and the Pacific States; 88 in the Atlantic States of North America, and 96 in foreign countries.

AGES.

Under 1 year, 85; 1 and under 10, 83; 10 and under 20, 16; 20 and under 30, 35; 30 and under 40, 69; 40 and under 50, 39; 50 and under 60, 17; 60 and under 70, 3; 70 and under 80, 3.

Health of San Francisco.—During the month of December the total number of deaths was 179. Of 109 burials in the Lone Mountain Cemetery, only 20 were of children under three years of age, and 3 still-born. Of 67 interments in the Roman Catholic burying-ground, 25 were of children under three years, and 7 still-born. Only three deaths are reported from the Jewish Cemetery.

There was an unusual number of deaths from diphtheria during the month —7 being reported from the Roman Catholic Cemetery and 3 from the Lone Mountain.

The other causes of death are recorded thus: Consumption, 13; brain diseases, 10; dropsy, 4; typhoid fever, 4; enteritis, 3; scarlet fever, 4; teething, 2; croup, 1; heart disease, 1; accidents and suicide, 6.

The causes of death are not given in a large number of cases. This should not be so, for it is not impossible that some of these "*unknown*" cases were the result of crime. We therefore call the attention of the authorities to the necessity of an ordinance requiring a proper certificate from a physician, in which the cause of death, the age, sex, nativity, etc., of the dead shall be distinctly stated, and imposing a penalty on the keepers of cemeteries for burying the dead without such certificate. There should also be an office for the general record of the deaths.

MONTHLY MORTALITY FOR 1862.

January,	173	July,	199
February,	218	August,	222
March,	207	September,	170
April,	174	October,	173
May,	152	November,	167
June,	160	December,	179
Total,			2,194

This result continues to sustain the satisfactory ratio established by the statistics given in the September number of our Journal for 1862.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Clinical Lecture on the Treatment of Acute Rheumatism,

Delivered at St. Mary's Hospital, London.

BY THOS. K. CHAMBERS, M.D.

GENTLEMEN,—Rheumatic Fever is a pleasant disease—I mean for the doctor to treat, though not for the patient to bear. It is pleasant for him to treat it, because he then feels himself strong and useful. In the first place, he can by the judicious exercise of his art, insure the sufferers against several perils to which the nature of their complaint normally subjects them. Again, he can save them much pain. Thirdly, he can shorten the normal duration both of the illness and of the convalescence. Truly, in most diseases he can effect one or other of these objects, but in none, I think, so many of them, so surely or so simply as in rheumatic fever.

Rheumatic fever is also a pleasant disease to lecture about. It presents a simple uniform type, so that the short descriptions you have had in the systematic course on the Practice of Medicine are found really applicable at the bedside, without the necessity for guarding them with all sorts of exceptions and variations, which clinical teachers are so often obliged to resort to in other cases. And a very simple uniform treatment may be recommended, which hardly ever (if ever) requires modification. So that if your authority with your patient is sufficient, and you are certain of your diagnosis, you never need to call in the assistance of a physician.

You see taken in the wards almost weekly specimens of the mode of treatment I adopt. My present business is to tell you the reasons for it.

1. The patients are bedded in a peculiar fashion. All linen is strictly forbidden to touch the skin. A slight calico shirt or shift may be allowed; but if they possess under clothing only of the prohibited sort, they are better naked. Sheets are removed, and the body carefully wrapped in blankets, which are so arranged as to shut off all accidental draughts from the head. The newest and fluffiest blankets that can be got are used. The bedclothes being put so are kept so, and students are warned that, when they listen to the sound of the heart, they must not throw open the blankets, but insert their stethoscope (first warmed) between the folds.

2. Those joints or limbs which are swollen, red, or painful, are wrapped up in flannels soaked with a hot fomentation consisting of decoction of poppy heads, with half an ounce of carbonate of soda to each pint.

3. The following drugs are prescribed with a curvative intention:—

(*a*) If the skin is red, swollen, and painful, about the joints—if the cellular tissue arround the muscles is infiltrated and sensitive, so that motion is impossible or exquisitely painful—more especially if these phenomena are metastatic, leaving one part free and attacking another,—then they get the alkaline treatment pure and simple; they have a scruple of bicarbonate of potash in camphor water every other hour night and day when awake.

(*b*) If the above-named phenomena are insignificant, and the pain is felt more in the bones—if it is intensified rather by pressure than by motion—if it is fixed in one spot and not metastatic,—then I add two grains of iodide of potassium to each dose; and directly the symptoms have taken a turn towards alleviation, I leave off the alkali altogether, and gave only the iodide.

4. Opium, as a palliative, is given in exact proportion to the degree of subjective sensation of pain. If one grain be not enough to entice sleep, a grain and a half is administered; if that do not avail, two grains. Directly the pain is better, the quantity of the drug is diminished. Nothing effects the desired object so well as pure opium.

5. If the pain remains fixed in one point, instead of leaving it like in other places, leeches are applied there, and the part is kept poulticed. When we can get them young laurel leaves, bruised, are mixed with the poultice.

6. The latter statement is applied also to the cardiac region, if the heart has become inflamed either inside or out. The pain is taken as an indication of the extent to which the leeching is to be pushed, so soon as it is proved by auscultation that such pain arises from inflammation of the heart, and not from rheumatism of the pectoral muscles. The constant application of the poultice is made imperative.

7. The diet is varied in some degree according to the antecedent circumstances of the patients. If they have been robust healthy persons before the attack they will bear a good deal of starvation, and they are put on our "simple diet"—to wit, bread-and-butter, gruel, and tea, in quantities practically at discretion. If previously they have been ill nourished, by reason of either ill health or poverty, a pint of broth or beef-tea is added.

I will now proceed to comment on the several items of treatment.

1. It is impossible to exaggerate the importance of extreme repose and an even high temperature to the skin in rheumatic fever. It is worth all the other means of relief put together. Since I have instructed my nurses to adopt it in every instance during the last eight or nine years, I have had pericarditis come on in only one patient previously sound, and that was a girl who was taking mercury and opium, and I suspect had exposed her chest a good deal to the air.

The *rationale* of this is very simple. Rheumatic inflammation is an injury to nutrition which is entirely compensated for by the restored function. It passes away and leaves no after-sign, no wound, no scar. This is what happens if the part affected is kept perfectly still. But should duties be required of it, which it is unequal to perform in its imperfect condition—should necessity or ignorance lead the patient to keep moving a swollen joint, for example—then common inflammation is superadded. Then the pain and swelling become fixed, and no metastasis can take place. You see this frequently in the poor working people, who, through ignorance of consequences, strive to go on with their employment to the latest minute. Laborers come into the hospital with the disorder fixed in their knees, carpenters in their elbows, laundresses in their wrists; so that you may make a shrewd guess at their trade from the part where the disorganizing inflammation is situated. Pain may be called by excellence *the* proof of beneficent design in God's laws as shown in disease, as a warning to abstain from that which excites it. The pain of rheumatism is a call to voluntary absolute rest. Now in the joints this is easily obtained, and under any treatment you never see a joint become affected with disorganizing inflammation after a patient has once taken to his bed. But there is one organ whose business admits of no repose; the heart *must* keep beating, at whatever cost; and the heart accordingly is well known to be fatally apt to be struck with common fibrinous inflammation at all stages of the disease. Taking a lesson from what I have noticed in the joints, I try and assist the heart to gain, not of course, the Utopia of absolute rest, but the nearest approach that is possible.

Perhaps you may think that object would be attained by simply confinement in bed and the horizontal posture. But it is not so. Next to jumping and running there is nothing gives the heart more work to do as change of temperature. Let the physiologist observe the healthy organ, and the physician examine it in a state of disease, and they will find that the addition or substraction of heat to the surface of the body is accompanied by a longer and stronger stroke as felt by the finger, by a longer and stronger sound as heard by the ear in the cardiac region What is technically called "the interval" is shortened; and thus is encroached upon the only wink of sleep the industrious muscle ever indulges in. What does the accoucheur do who wishes to apply the strongest vivifier to the dormant circulation of a still-born baby? He dashes cold water and cold air on the skin; he rubs the chest dry, and applies hot cloths; again he dashes it with cold, making as many changes of temperature as he can. What the accoucheur is so anxious to accomplish, we are most anxious to avoid; and I feel sure that it is the consequence of guarding patients with rheumatic fever from the influence which variations have over the dependencies of the pneumogastric nerve that the treatment now advised is so successful. I never have pericarditis come on when it is once fairly begun.

I scarcely need to say that the most important part as respects the attainment of the accoucheur's object and our opposite object is the chest and neck. He applies his stimulus especially there, and there we must as carefully watch against it. As a student I used to see many and many a case of pericarditis brought on by the careless way in which the chest was exposed in the daily stethoscopic examination. It is necessary, of course, to listen to the heart thus frequently, in order to convince yourselves of the absence of morbid sounds under the plan I am advising; but by warming the stethoscope in your pocket or under your axilla, and making the blanket into a tube by which to insert it, you put the patient to a minimum degree of danger.

You saw a fortnight ago an instance of the danger of the exposure I have been deprecating. Margaret K——, aged twenty-three, was admitted March 28th, for rheumatic fever in the arms and legs; from this she recovered perfectly without any affection of the heart, and was transferred to the Convalescent Ward.

On April 17th she had a relapse, principally affecting the legs, and on the 19th I found her in bed again. By an oversight she had not been blanketed, and when I felt the cold sheets damp with the patient's perspiration, I was not surprised that she complained of constriction across the chest. You heard me rebuke the nurse in no measured terms, and prognosticate evil. With justice; for before two days were over, there was a melancholy systolic murmur distinctly audible. I trust this case has been a warning to you.

2. By comparing in occasional cases one limb wrapped in fomentations of simple hot water with another where decoction of poppy heads were used, I come to the conclusion that either the viscid vegetable matter or the small quantity of opium in the poppy heads contributed towards alleviating the pain a little. And a similar experiment has led me to the same opinion as respects an alkaline carbonate.

3. With unimportant exceptions I have treated every patient on the alkaline plan for the last seven years, being convinced of its power to shorten and alleviate the disease by the statistical deductions of Dr. Garrod. In a great majority of the cases very rapid relief begins with the commencement of the treatment, and continues permanent. But in a certain number no effect appears to be produced, sometimes even after the urine had been made alkaline. In a few of these there is apparently committed a pardonable error of diagnosis, and the patient is gouty. In a few also we are deceived by gonorrhœal rheumatism—a disease allied to pyæmia, and requiring quite different management. Still there are a certain number of instances where true rheumatic inflammation is very obstinate, and does not yield to the alkaline method. And in these you will find the periosteum and perichondrium affected. When, then, after five or six days the patient is no better, or but little better, I add as I told you, iodide of potassium to the potash, and in a few days more continue it alone during the convalescence. And, of course, if I am enabled to make this condition of periosteum out of the first visit, I begin such treatment straightway.

I mentioned just now that I had in a few instances, for exceptional reasons, not given the alkaline treatment for rheumatic fever. Amongst these are included a middle-aged laborer and his wife, both attacked together, and just recovered, in which cases you saw no drugs given during the acute stage. The object of this omission was partly to disabuse my own mind of a suspicion that the alkalies might cause, or augment, the anæmia and weakness so general in the convalescence of rheumatic fever; or, perhaps, might give rise to relapses by interrupting the course of the disease. You saw that the loss of flesh and strength was in these two cases as great as usual, if not greater than in the majority of the examples exhibited to you in the wards, satisfying us that is the disease, not the remedy, which is to blame for it. You saw, also, that one of the patients (the man) had a relapse, showing that to nature, and not to art, is to be attributed this unfortunate occurrence so frequent in rheumatic cases.

Partly, also, I omitted drugs to remind you that you do not carry in your medicine chests absolute powers—that rheumatic fever is a state in which the forces of life move in a circle, in a road which leads of itself back towards health—not a chronic disorganizing process, whose path may be described as a straight line, approaching nearer and nearer to death the farther it goes. It ends of its own accord, or at all events without the aid of drugs, often in a few days, often (as you saw here) in a time quite as short as could have been expected had medicine been administered. This consideration is needful to enable you to estimate properly the value of numerical arguments and to understand that a very large collection of cases, much larger than your experience probably will ever supply to you, is required to prove the ability of a drug to shorten rheumatic fever. If you forget this, you risk being misled by a fallacy, at an instance of which, applied to this very disease, I was amused a few years ago. I had an interview with an irregular practitioner, (very irregular indeed,) who told me that he gave no medicines, but followed "the method of St. James; he "anointed with oil those that were sick, and the Lord raised them up." As evidence of the success of his plan, he gave me the history of two attacks he had experienced of rheumatic fever. In the first he was treated *secundum artem*, and was laid up for more than three weeks; in the second, he obeyed the perversion of Scripture above quoted, and was out of bed in five days. Of course he was perfectly impervious to argument.

Do not misunderstand my words, as if I intended to be sceptical of the proof adduced by Dr. Garrod of the success of the alkaline treatment in shortening the average duration of our patient's pains. I think he fairly proves his point by the numerical method. But besides that, the use of such drugs is quite in harmony with the principles of restorative medicine. The deficiency of the alkali in the body is shown in all quarters by the appearance of free acids. In indubitable cases left without treatment, the sweat is acid; the saliva is acid; the urine, instead of being normally acid, is intensely acid; the breath even smells acid. The blood, indeed, remains alkaline, fortunately for the life of the patient; but that is only done at the expense of becoming exceedingly watery, and inducing the anæmia which is so characteristic of the convalescence of rheumatic fever. If the blood is aqueous, and contains less solids than normal at the same time that the salts bear their usual proportion to the rest of the solids, it is obvious that there must be a great deficiency of these salts in the body. Though the blood therefore be not acid, it is easy to understand that it carries less alkali than it ought to do.

A real deficiency, then, is attempted to be restored by the alkaline treatment. And when we think what a great mass of living matter it is over the whole of which this blatant deficiency exists, then is explained the necessity found for large and repeated doses, which all good observers insist upon. To give a few grains three times a day is merely playing at healing, and cannot be reckoned as treatment at all. I do not think anything less than half an ounce in the twenty-four hours of the bicarbonate of potash is of use. If this runs off straight by the kidneys, making the urine alkaline too rapidly, it is of little avail; but if it mixes with the mass of the corporeal fluids, and is some time before it affects the reaction of the renal secretion, the advantage is sensibly appreciated by both the patient and his attendants.

The employment of iodide of potassium is purely empirical. By none can the fact be explained that this remarkable substance restores their normal functions to several tissues—most notably to those sparingly supplied with bloodvessels, such as cartilaginous and white, hard, fibrous parts, the periosteum, the sheaths of tendons and of nerves, the hair, the nails, and the outer layers of skin. On these grounds it is employed when rheumatism and even when gout attacks the tendinous and internal tegumentary parts of the joints and limbs. And I think one cannot doubt the assurances of the sufferers that they feel better for it, however inexplicable the fact may be.

4. Opium is administered purely as anæsthetic. There is no reason to think it either shortens or lengthens the duration of the disease. Curiously enough, it does not usually produce constipation so long as the painful condition which it is given to alleviate remains. Should, however, that result follow, the inconvenience is easily obviated by adding two or three grains of good extract of colocynth to the opium pill.

5. The treatment by leeches and poultices of the common inflammation which has supervened on the rheumatic in joints over-exerted during their weak state, has nothing special about it. It will usually prevent disorganization, because in point of fact the inflammation is very slight and diffused.

I have told you inflammation of the heart does not come on in patients who have once been placed and kept under the treatment detailed to you; but in a good many the exposure they have been subject to previously, and sometimes, perhaps, the necessary time spent in the waiting-room before admission, gives you, unfortunately, the opportunity of seeing this complication treated. I feel satisfied that it need make no difference in the applicability of the alkaline method; indeed, it rather determines me to insist on its being fully carried out; it determines me also to be more than usually careful about the maintenance of temperature by blankets, and to direct this attention to the chest in special by the retention of continuous poultices on the cardiac region. From six to twelve leeches are applied immediately. These usually relieve the pain somewhat; but if it returns again next day, they are freely repeated again and again. The pain is the best indication of the acuteness of inflammation in serous membranes, and as long as acute inflammation lasts, leeches and poultices are the best remedies for it. To mercury

I have never been able to trace any advantage at this stage; indeed, I am not sure that it does not dispose to pericarditis by increasing the proportion of fibrin to the other constituents of the blood. Perhaps after effusion has taken place it may be useful; but I am not quite satisfied that it is desirable in all cases even then. Opium may be given in full doses, and far from being contra-indicated in cardiac inflammation, is all the more urgently demanded; for it certainly does control and lower the hurry of circulation, which is so dangerous. Under its use the pulse is diminished in frequency, sometimes even below the normal standard; and this must surely be an important object in a state induced by the continuous motion of the organ.

The treatment of pericarditis admits of no delay. Lost minutes are more hurtful here than in any disease I know of. Send for leeches, and have them applied immediately our suspicions are aroused by an abnormal murmur; and if they are not at hand, cup the cardiac region. It is better even to anticipate evil than to be too late. On this principle you saw me a fortnight ago leech and poultice the heart of the young woman before mentioned (case of Margaret K——), where you could detect no friction in the pericardium, and you wondered at my "sharp practice;" but the fact is, it was a case of relapse during convalescence, and as the patient was in the convalescent ward, the nurse negligently omitted to put her in blankets; the cold, damp linen was beginning to do its work, and the lengthening heavy systole of the left ventricle, accompanied by a sense of constriction, and pain on pressure, warned me to try and prevent the threatened inflammation. I was only partially successful; for the anticipated evil did come as predicted, and in two days' time an exo-cardial murmur was distinct enough, though I am convinced it was in a much milder form than would have happened without the leeches.

7. In rheumatic fever there is a painful necessity for restricting the supply of nutriment. If animal food be given, it appears to turn into lactic acid, or at all events to increase the quantity of animal acid in the body. Even when the pains are gone, and there is such an urgent necessity for replacing the lost flesh, animal food will sometimes bring on a relapse. Hence in rheumatic fever, alone, perhaps, of all diseases, I give the patient less food than their inclinations dispose them to take. Meat especially seems to disagree, and you must very cautiously get back to "ordinary diet" after rheumatic fever, or you run the risk of losing more by a second attack of the disease than is gained by haste. Vegetable food does not throw them into the same danger, and thus by dint of rice-pudding, porridge, gruel, bread, mashed potatoes, and so on, you can generally succeed in stopping the mouths which are often so loudly complaining of starvation. If you cannot succeed in staying the appetite by this persuasion, I fear it is your duty to be cruel, for observation will soon convince you of the dangerous effects of animal food.—*London Lancet.*

THERE ure now in the 156 general hospitals of the United States 60,515 sick and wounded soldiers. Of these 12,665 are in the Western Departments, 17,214 in Washington and vicinity, and the remainder in the various general hospitals throughout the Atlantic and Gulf States. To attend these properly, it is necessary to keep employed a force of 400 stewards, 300 ward-masters, 6051 male and female nurses, 3025 laundresses, and 2017 cooks, making a total of 72,308 non-combatants, although medical officers are not included. If to these were added the sick in the Departments of the Pacific and New Mexico, those at home and in regimental, brigade, division, army corps, and private hospitals, there is no doubt that the number would be swelled to 100,000.—*American Medical Times.*

On the Treatment of Pneumonia: with the Results of 105 Carefully Recorded Cases.

BY J. HUGHES BENNETT, M. D., EDINBURGH.

BY pneumonia, or inflammation of the lung, the author understood a disorder essentially composed of an exudation from the blood among the elementary textures, and into the air-vesicles of that organ, which gives rise to those well-known physical signs and functional symptoms with which all are familiar. This, like most other inflammations, when acute, was formerly treated by so-called antiphlogistics—that is to say, bloodletting, purgatives, antimonials, low diet, and other methods of lowering the strength of the patient. It was about eighteen years ago, in consequence of investigating the pathology of inflammation, that Dr. Bennett began to doubt the propriety of such a treatment, and this for the following reasons:

In the first place, the cause of the inflammation is an irritation of the textures, of the ultimate molecules of the part; in consequence of which their vital power of selection is destroyed and that of their attraction is increased. The removal of blood by venesection cannot alter this state of matters, neither can other lowering remedies. If the inflammation be superficial and limited, local bleeding may diminish the congestion, as in conjunctivitis; but if exudation has occurred it cannot remove that.

In the second place, an exudation or true inflammation having occurred, it can only be absorbed by undergoing cell-transformation. Now this demands vital force or strength, and is arrested by weakness. Inflammations in healthy men rapidly go through their natural progress. In weak persons they are delayed or arrested; hence their fatality.

In the third place, the strong pulse, fever, and increased flow of blood in the neighborhood of inflamed parts, have been wrongly interpreted by practitioners. They are the results, and not the causes, of inflammation; and show that the economy is actively at work repairing the injury. So far, therefore, from being interfered with and interrupted, they should be supported by nutrients.

It follows, fourthly, that if these views be correct, the true treatment of inflammation should be directed towards bringing the disease to a favorable conclusion, by supporting, rather than by diminishing, the vital strength of the economy; and this, not by over-stimulation, as was done by Dr. Todd, but simply by attending to all those circumstances which restore the nutritive processes to a healthy condition.

Having been guided by these views in his practice for the last fourteen years, and having seen that they have been gradually adopted by the profession, Dr. Bennett offered the most convincing proof of their correctness from an analysis of 105 cases of pneumonia publicly treated in his clinical wards in the Royal Infirmary of Edinburgh, and carefully recorded by his various clincial clerks. In all these cases, the treatment was directed to the support of the economy, never to weaken it by antiphlogistics. At the same time if dyspnœa be urgent, cupping or a small bleeding (from four to eight ounces) may be practised as a palliative, more especially in bronchial or cardiac complication—although in none of these cases was such bleeding ever found necessary by him. During the febrile excitement mild salines are administered. On the fourth or fifth days, when the fever abates, good beef tea and nutrients are administered; and on the pulse becoming soft or weak, from four to eight ounces of wine daily. As the period of crisis approaches slight diuretics are given to favor the excretory process. The results are—

Single uncomplicated cases - -	58	Average duration - - -	13½ days
Double „ „ - - -	19	„ „ - - -	20 „
Complicated cases „ - -	17	„ „ - - -	15¾ „
Unsatisfactory „ (as to duration)	8		
Deaths - - - - - - - - -	3		
	105		

Ratio of deaths, 1 in 35 cases.

Average residence in the hospital of 77 uncomplicated cases of pneumonia, (single and double), 22½ days.

It has been supposed that in consequence of this comparatively small number of cases occurring in so long a period as fourteen years the disease is rare in Edinburgh. It should therefore be explained that the clinical professors are on duty alternately, and that he (Dr. Bennett) had never acted as a physician to the Infirmary more than one-half of the year, and in most cases only one-third of the year. It has also been imagined that pneumonia in Edinburgh is usually slight and trivial, or that the disease in these cases was not extensive. But it is not so. Many cases, and especially the double ones, were very severe, with great dyspnœa and very urgent symptoms. Dr. Bennett had frequently pointed out the existence in these cases of the hard and strong pulse in vigorous young men, in whom, however, the most rapid recoveries were invariably observed. It should also be noted that these cases were in no way selected, but included not a few which were admitted *in extremis* by the resident clerk, and never seen by the physician; nor such as were partly treated by other physicians in the hospital, and for which treatment Dr. Bennett was not responsible.

From these facts Dr. Bennett concluded:

1. That simple pneumonia, if treated so as to support instead of lower, the nutritive processes, so far from being a fatal disease, almost invariably recovers.

2. That the cause of mortality in these cases is exhaustion, either before they come under medical supervision, or, as formerly practised by a lowering treatment. Bleeding or other remedies that do not exhaust must be regarded as palliative rather than curative, and their influence has yet to be determined with exactitude.

3. That the same rule applies to all inflammations, the amount of danger being in direct ratio to the weakness of the system; the existence of complications in other viscera, or blood poisoning.

Dr. Bennett was of opinion that these important results were not the effect of chance; of empirical experiment; of a change in the nature of inflammation, or of the force of the pulse in man and animals; of an alteration of diet or of drink, or of nervous susceptibility; nor of a change of type in disease; all of which have been supposed by some explanatory of facts which can no longer be denied. The more he considered this subject, the more was he convinced that it could only be justly attributable to the advance of medical science, and that it was a source of infinite satisfaction for medical men so to consider it. He thought it strange that some minds would rather ascribe so manifest an improvement in the treatment of disease to hypothetical revolutions in nature which had no proof in their support, than to the increase of knowledge amongst the profession which was observed to all. It seemed to him that if any one demanded in what way our advance in physiology and pathology had benefited the treatment of disease, no better proof of it could be found than in the diminished mortality that everywhere now accompanied attacks of acute inflammation.

Dr. Routh said he had given a great deal of attention to pneumonia.

having watched its treatment abroad, in London, and elsewhere; and it appeared to him upon the face of the table, if it was accurate in all its details (as he had no doubt Dr. Bennett believed), every one who had treated the disease must give the palm to Dr. Bennett. Certainly, there could not be found throughout the whole of Europe any statistics which could bear comparison with those he had brought forward. But he was inclined to take exception to one or two points, which Dr. Bennett might perhaps be able to explain. The average age of the patients was said to be 31⅓. He believed it was an admitted fact, that many a case of pneumonia occurring in healthy persons, or in persons not particularly unhealthy, would get well under the age of forty and above twenty, whatever treatment might be adopted. Then, again the mortality was much greater in females than males, but Dr. Bennett had not adverted to that point. He had noticed that one of the tricks practiced by homœopathists in the treatment of pneumonia was the selection of men and the omission of women. He did not imagine for a moment that Dr. Bennett had pursued any such course, but it would be satisfactory to know the proportion of the sexes in the cases he had recorded. In the comparison of statistics there was an error into which they were liable to fall, namely, the grouping of the cases. He observed a certain number of cases said to be single and uncomplicated, and that was by far the greater number—58 out of 105. Taking this into consideration, together with the fact that the patients were probably under forty, one would necessarily expect the mortality to be small. If in comparison it was found that the per centage of bad cases, where both lungs were implicated, was in favor of Dr. Bennett, that would be an incontrovertible argument to prove that he was right; but it might also turn out that the per-centage was less. It would be well if Dr. Bennett explained, in regard to the single uncomplicated cases, the exact amount of lung that was affected, if only a small part was affected, such cases would go on almost as well without as with medicine, and unless they were closely examined they were often quite overlooked.

Dr. Farr said that, as Dr. Bennett's cases were admitted into the Infirmary and open to criticism, it must be supposed that they were really cases of pneumonia. He should be glad to know whether they were all the cases that had come under his notice, or merely a selection; also whether he followed the 105 cases to their termination, through secondary disease and any other complaints that might follow; whether he was sure that the 105 cases were absolute cases of recovery; and whether he had any information as to the period of the disease when the treatment was commenced. It would no doubt create a revolution in medicine if such results were confirmed by further inquiry. The great majority of deaths from pneumonia took place in children and very old persons, and the mortality increased about a third for every ten years of age.

Dr. Webster asked whether the cases were selected from clinical wards or indiscriminately from those that came to the Infirmary?

Dr. Kidd spoke in favor of the treatment pursued by Dr. Bennett, and said he had observed the like results from a similar mode of treatment employed in London.

Dr. Camps said he was not surprised at the results brought forward by Dr. Bennett. He was convinced that uncomplicated pneumonia, occurring at almost any age between twenty and fifty or sixty, was not necessarily fatal, but would get well under almost any treatment. The results of Dr. Bennett's practice were so marvellous, that if these statements were not brought forward on such good authority, it would be concluded that they were not cases of pneumonia at all. He congratulated the profession on the results, and believed that, if a similar plan was adopted, in many cases there would be a diminished mortality, not simply in pneumonia, but in diseases generally.

Dr. Waters said he wished to say a word in approval of Dr. Bennett's mode of practice. He was connected with a hospital which received within its walls a large proportion of cases of acute disease. It used to be an axiom in medicine that wherever a patient was previously in health, and was attacked with acute pneumonia, he would benefit by an abstraction of blood. The cases that came under his notice were those of sailors who were struck down constantly with acute disease apparently without any previous indisposition to it—strong, healthy men, who were brought into the hospital two or three days after the attack. In those cases he did not extract a single drop of blood, and he found that they recovered rapidly upon the treatment advocated by Dr. Bennett. He believed that such cases were typical of those in which extensive bleeding was formerly supposed to be necessary.

A member of the Association said he had employed large doses of belladonna in the treatment of pneumonia, following the example of Professor Graves of Dublin, and asked Dr. Bennett if he had any experience in that method of treatment.

Dr. Bennett, in reply, said that the cases were taken in the public wards of the infirmary, and were carefully recorded day by day, not by himself, but by clinical clerks. The mode in which clinical instruction was carried out in Edinburgh would satisfy the members that every one of the cases was most carefully examined. Each case was first examined by the clerk, and the facts were written down. The Professor afterwards re-examined the case in all its bearings, and if the private record was found to be in any respect incorrect, it was at once rectified. A careful record was afterwards kept day by day until the case was completed and dismissed. All the circumstances to which Dr. Routh had alluded were to be found in the records of the hospital, and would be given to the public with his (Dr. Bennett's) paper. It was true the average age of the patient was 31½, but, speaking from recollection, he had no doubt that many of the patients were of advanced age. The cases were not intended to be compared by him with other systems of treatment, but with the antiphlogistic method of the past, such as that employed by Louis and all other hospital physicians about twenty years ago. Many of the cases were very severe, a great portion of the lung being involved. There had been no selection of the cases by him, but they included all admitted into the hospital except such as were admitted late at night, and, dying before the arrival of the physician, did not come under his observation. There might be half a dozen such cases swelling the mortality of the hospital, but they were evidently removed from the question of treatment, because they had never been treated at all, the patients being admitted *in articulo mortis*. The periods of the disease when the treatment was commenced had been various. The sooner, however, the case came under treatment, the more rapid was the recovery. The results of his labors in private had been the same as of those in public. He had no experience of the use of belladonna in pneumonia.—*Lancet.*

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MISS NIGHTINGALE.—We regret to learn that there is only the very slightest foundation for the report of Miss Nightingale's restoration to health. She is able to remove from one place of residence to another—a very few miles—once a year, but she is scarcely able to leave her bed in the intervals, and quite unable to struggle with the flood of correspondence and applications of all kinds which the report of her partial recovery has brought upon her.—
—*British Medical Journal.*

On the Value of Urinary Analysis in the Diagnosis and Treatment of Hepatic Disease.

BY GEORGE HARLEY, M. D.

THE author began by saying that, as the practice of medicine is simplified in direct proportion as our means of "physical diagnosis" increase, he was glad to have the opportunity of calling attention to the fact that a knowledge of the condition of the urine is of as great assistance in the diagnosis of affections of the liver as of those of the kidney. Hitherto, the only physical means we possessed of detecting and distinguishing the various forms of hepatic disease did not extend beyond acquiring a knowledge of the position and size of the liver by percussion, the absence of bile from the stools by inspection, and the presence of biliary pigment in the urine by the application of nitric acid to that secretion. Every one, however, must have met with cases of obscure hepatic disease where these means of research proved totally inadequate to their requirements. This circumstance has led several practitioners to seek further aids to diagnosis in such cases; and consequently, at various times during the last few years, valuable suggestions have fallen from different members of our profession both here and abroad. For example, Dr. Eiselt of Prague has called attention to the fact that in cases of melanotic cancer of the liver, the true nature of the affection may be sometimes discovered during life by the presence of melanine in the patient's urine. (A specimen was shown to the members of the association.) Urine containing melanine, the author said, although of the normal color when first passed gradually becomes of a dark hue, even as dark as porter, when left for some hours exposed to the air. This change appears to be the result of a slow oxidation of the pigment. In the second place, Frerichs, in his admirable treatise on Diseases of the Liver, states that two substances, tyrosine and leucine, which were formerly only known to the scientific chemist, are invariably to be found in the urine of patients laboring under acute or yellow atrophy of the liver. Dr. Harley said he had been able to verify this statement in the urine of a young married woman who died from this most fatal form of disease. Dr. Wilks, he stated, had brought the case under the notice of the Pathological Society, and a report of it will be found in the "Transactions." Dr. Harley mentioned an interesting case of chronic atoophy of the liver, the result of obstruction from disease of the pancreas, in the urine of which he found both tyrosine and leucine. He had seen the gentleman several times along with Mr. Prance, and they noticed that as the disease advanced the quantity of the abnormal ingredients increased. After death, crystals of tyrosine were found in the liver. Dr. Harley recommended that in all cases of obscure hepatic disease these substances should be looked for; and said that in the majority of cases they were readily detected in the concentrated urine by means of the microscope. The tyrosine appears as needles and little stars; the leucine as round yellow balls, some of which are ocasionally spiculated.

The author next proceeded to direct attention to the method he had recently laid before the profession of distinguishing between jaundice arising from suppression and jaundice the result of obstruction—two forms of disease so ably described by Dr. Budd. As the treatment of jaundice from suppression ought to be very different from that adopted in jaundice from obstruction, it is of essential importance to be able to distinguish the one from the other. After alluding to the great differences of opinion that have hitherto existed regarding the presence of the biliary acids in the renal secretion in cases of hip disease, the author pointed out how the discrepances arose from the fact that sufficient attention had not been paid to the kind of jaundice under which the patient labored. He said he believed that where bile acids occurred in the urine in any quantity, their presence might be regarded as a certain sign of the existence of some obstruction in the course or at the termination of the common bile duct. Dr. Harley then proceeded to demonstrate, by experiment, how easy it is to detect the bile acids in the urine by means of strong sulphuric acid and a small piece of white sugar. The sulphuric acid was so added as not to mix with the urine; the sugar floated at their line of contact, and after some minutes assumed a purple hue. In the urine containing no bile acids the sugar was simply browned.

Dr. Thudichum said, the author had ascribed the doctrine he had propounded to Prof. Frerichs. He, however, only watched the patients clinically; it was another physiologist who made the examinations, and discovered tyrosine and leucine. The disease in question was dogmatically termed atrophy, but he (Dr. Thudicum) as dogmatically objected to that term, for he had seen cases where the liver was certainly enlarged about one-third its ordinary size; and in one case, brought under his notice by Dr. Richardson, it was doubled in size. In some cases, so far from the liver being atrophied, it was hypertrophied. An excellent test was to put a drachm of the solution of the nitrate of mercury in the urine; the urine being then boiled, the white precipitate produced would be transformed into a dark purple color, and the solution itself would assume a partly purple color.—*London Lancet.*

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Clinical Lecture on Pleurisy,

Delivered at St. Mary's Hospital, London, July 5th, 1862.

BY THOMAS K. CHAMBERS, M. D.

THOMAS G——, a day laborer, aged twenty-nine, was admitted June 19th, with anasarca of legs and belly of a fortnight's duration, and albuminous urine, which he attributed to exposure to the weather. The house-surgeon gave him a vapor-bath, a jalap-purge, and some draughts of nitric ether and digitalis. When I saw him next day (June 20th) he complained of sharp pain on both sides of the waist, which he said had been coming on two days and was getting worse. On examination I found a pleuritic friction-sound beneath both scapulæ and in the lateral regions, but the normal respiratory murmur was still to be heard in spite of it. The friction-sound was a leathery creak, lasting through the whole of inspiration and the latter part of expiraton. The tongue was furred, and there was thirst. He was ordered to be cupped; but as the instruments had unfortunately gone to be mended, and would not return for an hour or two, a dozen leeches were applied along the lower edges of the ribs in the infra-scapular region. Immediately they came off, a large poultice was placed all over the back of the chest.

The next day (June 21) the pain and fever were quite gone, the friction-sound was heard over a limited space, and on the 22nd had departed altogether. The poultice was continued one more day, as the patient remained in the hospital to be treated for albuminuria.

Pure fibrinous inflammation of the pleura, usually called pleurisy, without any affection of the pulmonary tissue, you do not often have an opportunity of seeing in the hospital wards. But you know, from your experience of post-mortem examinations, how common it must be. There are few even of the most healthy chests in which you do not see old adhesions of the pleuritic surfaces, the relics of pleurisy—sometimes in one part, sometimes in another—sometimes partial, sometimes universal—but so common that they were supposed to be the normal condition of the part when morbid anatomy began first to be studied. What is the reason, then, that you have so few opportunities of learning how to treat this so common disease while you are *in statu pupillari?* Simply because it is scarcely ever so severe as to bring the patients into our hospital wards, so that your only chance of observing it is when it is joined with some more alarming disorder. The man who is the occasion of these remarks would never have been admitted here had he not been taken dropsical at the same time as he caught his pleurisy.

Ninety-nine times out of a hundred, pure pleurisy begins and ends with a catching pain in the side on inspiration, and a slight inflammatory fever; making the patient coddle at home and take slops, but not employ a doctor. It would, however, be much better for him if he did, for sometimes the illness may turn out a more serious affair, and always the pain in the side and the fever may be shortened by good management and lengthened by bad.

For example: Blisters at the commencement of pleurisy invariably protract the duration of the inflammation, and make it more severe. The property of cantharides is to cause and augment that very fibrinous state from which the membrane is already suffering. Exposure to cold, and to changes of temperature by baths and the like, makes it worse, as do strained postures of the body and exercise. Opiates also cover up the evil with an anæsthetic mask, and prevent the patient knowing how he really is. Mercury, again, is an unnecessary call upon the whole system to make destructive sacrifices for the sake of a very small and not important member. Purgatives do no good, and expose the patient to catch cold at the water-closet.

On the other hand, the treatment you saw applied gives decided and immediate relief, and prevents the danger of the disease continuing.

It is necessary, however, to remark, that the whole of it was not directed to the pleura; the vapor-bath, the diaphoretic draughts, and the jalap were intended to relieve the anasarca of the skin, and were successful in so doing; while the treatment to which I specially design to call your attention as that appropriate for pleurisy, is the application of leeches and the poultice.

The object of leeching and all bloodletting is to relieve that inflammatory congestion, which is not only an evidence of loss of vital power in the local bloodvessels, but is also the cause of further loss of vital power by leading to the other steps of the inflammatory process. The bloodvessels are unable to empty themselves with their usual elasticity, so you roughly take the place of vital power and empty them artificially. You may perhaps say, that is all very well in external inflammations, when you can directly draw off the blood which is causing the "rubor" and "tumor" visible to the naked eye, but you may doubt how the pleura, especially the pulmonary pleura, is to be affected by depleting the capillaries of the skin. It is such a long way round before you can find any vascular connection between the part, that you may suggest that local bloodletting is only beneficial by detracting so much blood, and that a small venesection would be more convenient and equally effectual. Now, it is not at all necessary to have a vascular connection between separate parts for altered states and conditions of life to be propagated from one to another. I have seen in the dead body a round, circumscribed spot of costal pleura affected with fibrinous inflammation, and this had spread—not to the adjoining surface of serous membrane—not to that tissue intimately one with it in vascular connection—but to the opposite surface of the lung, between which and its substance lay the great gulf of the pleural cavity—the great gulf, anatomically speaking, but not physiologically, as proved by this instance. Now, if this gulf can be spanned by disease—the negation, the deficiency of life,—shall it not be yet easier stepped across by the remedy, the renewer of life? I do not myself feel any hesitation in believing firmly what experience seems to teach, that in inflammations of serous sacs depletion applied to the external surface has a power proportionate, not to the quantity of blood taken, but to the locality.

I have called the local detraction of blood a "renewer of life," and I think it is but fair to explain in what meaning I so speak of it. Doubtless the taking away the vital fluid is taking away part of the body, and so is directly a destructive agent. But then blood lost *from* an inflamed part is not all loss, it is black, "melanosed," partially dead and unfitted for the purposes of life, and only a portion of it can really be called living. Then, again, granting that loss of blood is a direct loss to a living body, still the indirect gain is a full compensation to cases where it is rightly applied. The blood-vessels resume their elastic force, the blood stream is restored, and loss of substance is a regaining of function; so that a destructive becomes in the end a constructive remedy.

In the action of poultices there is no even seeming paradox to stumble at. Continuous steady warmth is the most direct agent we possess of vital development. It not merely encourages vital growth, but makes that growth take a higher form of life. Mr. Higginbottom found that different detachments of tadpoles, kept in the dark, and treated with different degrees of temperature, threw off their tails and branchiæ, and developed lungs and became frogs, with a quickness exactly proportioned to the warmth they were subjected to.* Warmth, especially when kept steady and even by moisture joined with it, has the same effect on the failing life of tissues in the higher animal. It raises and restores it to its normal force of development. It renews the injured membrane, which had been lowered to that condition we call congestion or inflammation, into the higher life of warm-blooded circulation. As it developed the tadpole into the frog, so it developes the half-killed diseased part into full life.

But you must take care not to follow up the application of invigorating warmth by the depressing influence of cold, or it becomes doubly depressing by contrast. Your poultice must be kept on hot and hot till all pain has gone, and the breath can be drawn quite easily. And it will do no harm to induce your patient to retain it even a little longer, as was done in this case. Such means will not fail to cut short an attack of pure pleurisy.

But you will say, there are cases of pleurisy which are *not* cut short; and notably just now there is one a few beds off the last patient whose case I will extract from the case book:

John C—, aged thirty-four, navigator, always enjoyed good health until six months ago, when, on the third day after lying in a damp bed he was seized with a violent sudden pain in the right side, which obliged him to take to his bed. He was in bed a fortnight, and was treated with mustard plasters. He coughed up a good deal of frothy sputa, and was a little delirious several nights. The pain then left the right side and settled in the left, but did not prevent his getting to work a month after the first attack. His work has not been hard, and he has continued at it, with an occasional day's exception, till he was admitted June 25th. The principal trouble he has had, and the cause of his being off work sometimes, has been dyspnœa. He has pain on bending forward and on drawing a long breath.

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* 20 tadpoles in a dark cellar at 56°, produced in 89 days 10 frogs.
20 " " " 53°, " 103 " 10 "
20 " " " 51°, " 131 " 8 "
Proceedings of the Royal Society (1862), vol. xi., No. 48, p. 532.

On examination of the chest in a sitting posture, there is very absolute dullness of the lower half of the lateral and scapular and of the whole infra-scapular region of the left side. The rest of the thorax is resonant. When he lies on his belly and puts the shoulders below the level of the chest, hanging his arms and head down, this infra scapular region becomes more but not quite resonant, showing that the course of the dullness is, in part at least, due to fluid which moves about by the force of gravity. Still some dullness remains, and there is a whiffiing sound with inspiration and expiration; and in the lateral region the dullness remains unaltered by any position.

The pathological history of the case appears to me this: That the man was attacked with double pleurisy, worse apparently on the right side than the left; that the treatment relieved it; but that the left side, being the least attended to, the inflammation spread to the pulmonary tissue, and caused its insidious condensation. The cause of the dullness on percussion is partly fluid, which is affected by gravitation—partly solidified lung, which is not so altered in its position. The fluid in the pleura and the condensed pulmonary tissue have mutually kept one another from being restored to life.

Such is the most ordinary cause of long cases of pleurisy made chronic. The longer they have lasted, usually the more obstinate they are in yielding.

As respects treatment, you will find on the card the following, which may be considered as the "*processus integer*," as Sydenham calls it, of such cases:

June 25th.—Empl. cantharides (6^2 pollices) lateri.
℞ Misturæ potassœ nitratis, ℥i.
Tinctæ ferri sesquichloridi, ♏xv.
Ter die.

℞ Pilulæ hydrargyri,
Scillæ,
Pulveris digitalis, aa gr. iss.
Omni nocte et mane.

You will observe that the drugging is a union of destruction and construction, so as to try and alter as far as possible the whole habit of the system—to cause by destruction a demand for new material, the supply of which is guaranteed by the iron. The mercury causes a general increase of metamorphosis, the waste from which is directed to the kidneys by the squill and nitre. The digitalis tends to relieve congestion by increasing the activity and tone of the blood-stream. So that by a union of virtues the combination prescribed in the pills will rarely fail to prove a powerful diuretic. The blister which has been put on the side will probably have to be repeated once, and perhaps again. You will observe, however, that I shall leave a considerable intervals between each blister, I shall not apply first one on the side, then one on the scapula, then one beneath the collar-bone, stroke upon stroke, one as fast as the other comes off. This is not an uncommon practice, and the object of it is to save time, to get the two or three blisters which have to be put on over as soon as possible. I do not myself adopt it, and I will tell you why, as the reasons give a very good example of the restorative system of medicine which is intended to be taught in this course of lectures.

The action of vesicants is first to destroy the epidermis, and to cause the exudation of a fibrinous serum beneath it. Very probably a similar but more remote effect is produced on the neighboring tissue of the pleural sac. But it is not at this stage of the process that the chief benefit occurs. If you watch carefully the line of dullness marking the upper margin of the collection of fluid in the chest, you will find that it falls—not when the blistered skin is full of liquid, and is discharging serum—not when the counter-irritation may be concluded to be at its height—but after it is all over. As the sore heals, then the level goes down with the greatest quickness. That is to say that the true use of blisters in such cases is to start a healing process, a renewed life, on the outside skin, in order that it may be propagated to the neighboring viscus inside. As long as this healing influence continues to be exerted, you would gain no time by a recommencement of the process, and your too hurried repetition of blisters wouldd add to the patient's distress, without conducing to his cure. Wait, then, till the effect of one blister has gone off before you order another.

Another case of pleurisy which has occurred this week I do not cite as possessing any interest in a therapeutical point of view, for it was rather an instance of the weakness of our art.

Charles D—, aged eight, was admitted on June 24th, with pyœmia after scarlet fever affecting the principal joints, and an incipient slough on the sacrum. On July 1st he died. At the request of the parents, the curator cut into one only of the joints, which was tense with creamy pus. On opening the chest, serum filled with flakes of fibrin gushed out from the right pleura. Bands of soft, elastic, straw-colored fibrin, of an inch in length, united the opposite side of the whole pleura, and coated the surfaces with a honeycombed layer. The lung was pressed back against the spine, was non-crepitant, inelastic, and tough. Now the front of this boy's chest had been examined on the day of admission by myself, the house-surgeon and the clinical-clerk, and I cannot but feel sure that had pleurisy existed there at that period we should have found it out. Afterwards, the wailings of the poor child at the idea of being touched became so piteous, and the torture of moving the arms would probably have been so great, that an examination to discover the cause of the pain he complained of in the side was out of the question. The day, then, when the pleurisy came on is unknown, but it must have been less than a week before decease. What an amount of disorganization to have happened in such a short time! What a quantity of serum and fibrin to be formed! What a destruction of pulmonary tissue in consequence! Pyœmia is certainly the most furiously destructive of idiopathic poisons; but yet, before seeing it, one would scarcely believe the swiftness of its action to be so great.

The moral is: If the march of death is so hasty, let there be no delay in your remedies. Apply your cupping, or leeching, or *faute de mieux* venesection, your bedding and your poultices, your slops and your diuretics, without losing a minute. Do not hesitate and trust patients to Nature, in any disease; but least of all in acute pleurisy.—*London Lancet.*

VACCINATION IN ENGLAND.—The number of persons vaccinated last year in England was 432,806, of which 425,739 were successful, and of this number 100,641 were above a year old. The number of registered births in the unions making these returns was 685,646, more than double the number of infants vaccinated by the public vaccinator. The number of the vaccinators was 3,731.—*Medical News.*

MORTATITY FROM COAL MINE ACCIDENTS IN GREAT BRITAIN.—The deaths from accidents in coal mines in 1857 were 1122; in 1858, 930; in 1859, 914; in 1860, 2109; and in 1861, 943; being an average for the five years of just over 1000.—*Ibid.*

Meeting of New York Academy of Medicine.

At a stated meeting of the New York Academy of Medicine, held Sept. 17 1862, Dr. James Anderson, President, in the Chair, the following proceedings were had:

Dr. Buck presented a patient upon whom the operation of tracheotomy was performed eight years ago, and related the case, which was one of

Artesia Faucium following extensive syphilitic ulceration of the velum and fauces, and producing extreme dyspnœa; to relieve which tracheotomy was resorted to and a silver tube permanently worn in the trachea. Dr. B. remarked, that the extraordinary condition of the patient whose case is about to be narrated, was thought to possess sufficient interest to be worthy of the attention of the Academy, and to warrant the introduction of the patient himself on this occasion. The history is as follows:

Charles Burton, seaman, a native of New York, aged 27 years, was admitted into the New York Hospital May 5, 1854. On inspection of the mouth, it was ascertained that the uvula was gone, and the free margin of the velum on both sides adherent posteriorly to the wall of the pharynx. Laterally the tonsils were concealed, and the isthmus faucium narrowed down to a circular passage leading on over the base of the tongue into the pharynx. This passage barely permitted the end of the forefinger to engage itself in it, but it did not allow it to pass through. The presence of the finger instantly provoked the most violent disturbance, and was exceedingly disagreeable to the patient. Immediately above this passage and occupying the situation of the uvula, was an aperture in the velum leading to the upper part of the pharynx, of the size of the end of the little finger. The surface of these parts was tense, shining, pale, and had the aspect of cicatrix tissue. Deglutition was difficult, and restricted almost entirely to fluids; when solids were attempted, they had to be reduced to a very soft consistence, and unless great care and deliberation were used in swallowing, strangulation was induced and regurgitation through the nostrils. Dyspnœa, which was also a prominent symptom, was greatly aggravated by the difficulty of deglutition. The voice, besides possessing the nasal tone characteristic of loss of the uvula, had a peculiar laryngeal resonance. Dyspnœa was always aggravated by exercise and other disturbing influence.

Previous History.—About three years previously patient had had primary venereal disease, consisting of chancre, gonorrhœa, and bubo, the only instance, as he asserts, of his contracting the disease. Winter before last, on a voyage from Liverpool, his throat became sore, and arriving at this port he entered the Seamen's Retreat on Staten Island, where he remained under treatment five months. Before leaving the Retreat about the first of July last, the passage of his throat became much contracted and dyspnœa very urgent. On applying to a doctor, he passed an instrument down his throat which patient compared to a catheter, but of much larger size. The introduction of it occupied an hour, and was followed by copious hæmorrhage for three hours. After this, respiration and deglutition were considerably improved.

Patient's chief desire in entering the hospital was for the relief of the dyspnœa, which was gradually becoming more urgent and disabling him from employment; his general health in other respects was good. It was ascertained by careful inquiry that there had been no previous symptoms of laryngeal trouble might indicate the existence of ulceration followed by thickening or contraction of the walls of the larynx, thus narrowing its cavity and obstructing the passage of air to and from the lungs. The inference, therefore, was, that the dyspnœa depended upon the extreme narrowness of the passage through the fauces. The expedient that suggested itself for his relief, and one that would avail also in case the larynx itself was the seat of obstruction, was the introduction of a tube into the upper part of the trachea.

Before resorting to this operation, it was decided to try the effect of enlarging the existing opening in the velum, which was done by incising it in the median line throughout its entire length. No benefit resulting from this operation, tracheotomy was performed on the 22d May, and the largest sized silver tube introduced and secured in place. But little disturbance followed the introduction of the tube. The relief afforded to the respiration was instantaneous, and in the highest degree satisfactory to the patient. Deglutition was also rendered easier.

Patient continued under treatment in the hospital till July. During that time the wound healed around the trachea tube, respiration continued easy and regular. Deglutition was somewhat improved by the introduction of bougies through the stricture of the fauces. On the 8th July he was discharged. On the 16th November following, patient was readmitted into the hospital, having suffered very much from secondary rheumatism most of the time since his discharge. After treatment by iodide of potassium, he was relieved and again discharged on the 21st December following.

This patient once more presents himself for our observation, after the lapse of eight years, and assures us that he has continued uninterruptedly his seafaring life in the capacity of a ship's steward, and has constantly worn a perforated trachea tube. In speaking, he closes the outer orifice of the tube with the thumb, and the nostrils with the fore and middle fingers of the same hand. By this procedure his voice is distinct, though somewhat nasal, but without it a disagreeable reverberatory sound is produced, to attempt which the patient is very averse. The aspect of the mouth is much the same as already described. The velum is more retracted posteriorly and upward, so that the posterior margin of the bony palate is sharply defined. The orifice of communication between the nares and fauces is of an oval shape, three or four lines long and two broad. In the median line between the orifice and the bony palate is seen a linear cicatrix, where the velum had been incised and healed up again. At the anterior extremity of the cicatrix was a foramen capable of admitting a knitting-needle, where cicatrization had been incomplete. Deglutition has to be slowly and cautiously performed. Solids have to be masticated very fine and largely mixed with liquids. Patient himself believes that a narrow passage exists between the upper and the lower part of the pharynx posterior to the velum, but the extreme sensitiveness of the parts prevents any exploration that would conclusively decide the question. With the tube and mouth closed, he thinks inspiration is rather easier than expiration, though both are performed with great effort and can only be repeated a very few times. Patient's general health is good, he is not subject to cough, or particularly susceptible of taking cold. He has earned full wages in his profession.

The case presents a most extraordinary condition of parts as resulting from extensive destructive ulceration of the velum and fauces. Adhesions of the velum to the pharynx, partial or complete, are not of extreme rarity, but narrowing and contraction of the fauces to such a degree as to impede deglutition and obstruct respiration, are certainly of very rare occurrence. It is also interesting, in this case, to note the comfort and freedom from irritation with which the trachea tube was worn for so many years. Two other cases, in which the tube was worn four years and nearly six years respectively, with the same comfort, have come under my observation.

Dr. Detmond.—I have seen several cases of adhesion of the velum to the posterior walls of the pharynx, but in none of them was there marked difficulty of breathing, as in this instance. In the case that is now most fresh to my memory, there was not much, if any difficulty in breathing. I would like to ask if Dr. Buck intends to have the tube worn permanently. It has struck me that it would now be a good time to dilate the orifice in the throat with a view of eventually superseding the use of the tube altogether. We know that scars from burns, which are the most resistant to treatment, will in the end yield to gradual stretching. It has been stated that when the man had the bougie introduced, considerable relief was experienced. Why not resort to such a practice now, when breathing is not interfered with? My impression is, that by such means the parts will very soon become manageable. I am aware that the parts are very sensitive; but we know that in cases of cleft-palate we can educate the parts to a great deal of handling. I think we ought to make an attempt to do away with the tube, because sooner or later some trouble may result from its pressure. Cutting in cicatrised tissue will only contract it the more. The case is an exceedingly interesting one, and I merely wished to throw out a hint in reference to the plan which I should adopt.

Dr. Batchelder wished to know if the compressed sponge would not answer an excellent purpose in such a case.

Dr. Buck.—Dr. Detmoid's suggestion is a very valuable and appropriate one, and one that deserves to be acted upon. I should not be disappointed in being unable to succeed in accomplishing anything by the dilatation; still I think it ought to be tried. If the patient will consent, I shall put him under that treatment. I have met with cases of adhesion where the uvula had been destroyed, and where there was adhesion of the free edge of the velum to the walls of the pharynx; but there has been no disturbance of respiration. Here, not not only has that taken place, but the pillars of the velum which participated in the ulceration have undergone a contraction, so as to narrow down everything at the base of the tongue. I should expect to succeed better with the bougie than with the sponge, as the rough and uneven surface of the latter would provoke altogether too much irritation. In this case, the parts being so extremely sensitive, it remains to be seen whether they can become accustomed to the introduction of the foreign body.

Dr. Batchelder did not see how the application of the sponge would be attended by any great inconvenience. He was ready to expect that almost anything that could be done would be accomplished by that remedy.

Dr. Post.—I would like to ask Dr. Buck, if he supposes that a communication exists between the upper and lower portions of the pharynx behind the velum.

Dr. Buck.—I tried this experiment with the patient to-day. I closed the tube after he had closed his mouth, and then asked him to breathe. In that case, of course, the respiration must take place through the nostrils. The patient thinks himself that there is a passage behind as well as through the velum. I have not yet tried the passage of a bougie into the nostrils, or into the pharynx. *Reports of the New York Academy of Medicine.*

Two Remedies for Pruritus Ani.—At an informal meeting of several physicians of this city, a few evenings since the following remedies were incidentally mentioned by gentlemen present, as having been very successful in their hands, in the treatment of this troublesome complaint:—℞. Acid. hydrocyan., fʒss.; hydrarg. chlorid., gr. i.; misturæ amygdalæ, f℥ij. M. ℞. Unguent. hydrarg. nitrat. fort.—*Boston Med. and Surg. Journal.*

Compression of the Spinal Cord,

BY H. A. POTTER, M. D.,

A. M. Salsbury, of Phelps, Ontario county, New York, while engaged in gathering walnuts, in October, 1859, fell from a tree a distance of twenty feet, and fractured certain vertebræ in the inferior cervical region. Three days after the accident I was called in consultation The patient was perfectly conscious, but was unable to move any part of the body or extremities, except the hands, which he could slightly raise, but which would fall upon reaching a certain point, without the least control of the will over them. Sensation was as imperfect as the motion. The patient being a fleshy man, it was difficult to determine the exact point of injury,

It was decided I should operate, which I did, October 9, 1859. I found the spinous process of the sixth vertebra fractured and displaced, and the arch of the fifth crushed in upon the spinal cord, nearly separating it longitudically. With some difficulty I removed all that portion comprised in the lamina and spinous process of the fifth and the spinous process of the sixth cervical vertebræ. The sheath of the spinal cord was entire, but, as before stated, the cord itself was much injured.

I did not see the patient again until the following January, at which time the wound was nearly healed, and he was as comfortable as could be expected; he could sit in an easy chair, could readily move his head, and converse as freely as any one. He had gained very little from the operation—sensation and motion being as imperfect as when first injured, except that he could use his left hand a little more freely than before. He remained in this unhappy condition until November 29, 1862, when I was again called to see if something might be done to relieve him. During the past three years there has been some spasmodic action of the lower extremities, and thinking that some compression might still exist—which, from the stout and fleshy condition of the neck, had escaped detection in my first examination— and as the situation of the patient could not be made worse I determined upon another operation, which was made in the presence, and with the assistance of Dr. Dox, of Geneva, and Dr. Carpenter, of Phelps

I removed the fourth, sixth, and seventh cervical vetrebræ, which left the portion of the spinal cord covered by the four inferior cervical vertebræ entirely exposed. The cord had not united, but at the point of the first operation it was well protected by a thick substance, resembling the coat of a large artery. At least an inch of the superior portion of the exposed part was much flattened and thinned, but the sheath was entire. At the connexion of the first dorsal vertebra the cord was full, and, to all appearance, in a normal condition. There was no pulsation at any point exposed, but there had been at the first operation; and, in my judgment, the pulsation of the cord will determine very correctly the diagnosis as to the extent of the injury. In two cases upon which I had previously operated, the cord could not only be felt but the *pulsation could be distinctly seen.* In both cases it was simply the yoking in, as it were, of the arch of the vertebra upon the spinal cord—the cord not being in the least separated. The first case was of five months' standing, and was the most perfect instance of paralysis and loss of sensation I have ever seen. A report of the same may be found in the *Journal of Medicine and Collat. Sciences* for March, 1844. It was, I believe, before the time of chloroform, and sensation returned instantaneously upon removing the compression, and a perfect recovery was effected. The other case I did not report. The patient was a colored man by the name of Susey. The operation was performed at Geneva, New York. I removed the posterior portion of the three inferior cervical vertebræ, and found the cord had simply been pressed against the body of the spinal column; the cord was not separated, and pulsated freely. I had great hopes of his recovery, but he died the fourth day. An autopsy showed fracture of the left parietal and occipital bone. A large clot of blood was also found around the foramen magnum, which was beyond doubt the cause of his death.

The last operation upon Mr. Salsbury has as yet proved of no benefit to him, and it probably never will, as nearly all connexion with the brain is obliterated.

There are two points I wish to call the attention of the profession to in connexion with this class of injuries. The first is, that, in all cases which have come under my notice, and I have seen eight, *when blood is taken from a vein of the arm it is arterial.* A letter may be found upon this subject, addressed to Charles A. Lee, M.D., in the journal before referred to in this communication. I have bled several for the purpose of testing the fact, and have always found the same result. This being true, the change from arterial to venous blood must be dependent upon the cerebro-spinal action of the nervous system, and it is not absolutely necessary for the change to take place in the passage through the system.

The second point is, that, immediately after the receipt of the injury, the patient begins to lose flesh, and during the first few weeks becomes much emaciated. Arriving at a ceatain point the recuperative powers of the system seem to rally, and nutrition appears perfect—the patients gain flesh in about the same proportion as it was lost.

Why is this, and what is the cause of the suspension and restoration of nutrition? My own opinion is, that suspension of nutrition is *in consequence of the loss of the nervous action.*

But what restores it? It cannot come from its original source, for the cause is not removed, and there is no sensation or motion below the injury, and no direct commuuication with the brain.

I think the ganglionic system is entitled to more investigation. May we not find there a reserved power, which after the suspension of the spinal nerves, develops itself and supplies in part or whole the want? Does not each ganglion become enlarged and act as a little brain, so far as the nutritive process is concerned? I leave this and the question of the unaltered state of the blood for others to investigate. There is no class of cases which has received so little attention in the right direction, as injuries of the spine, and surgery has not done its whole duty until every effort is made to remove the cause in lingering cases, and this should be done early.

Mr. Cline first operated for fracture of the spine. He was followed by Mr. Terryll and Sir Astley Cooper; the latter eminent surgeon says, and none can gainsay it: "The operation is laudable and not severe, nor does it increase the danger of the patient, and experience can only determine its value. If we could but save one life in a hundred we deserve well of mankind."—*American Medical Times.*

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MORTUARY RETURNS FOR TEN YEARS.—The Registrar-General is preparing mortuary returns for tem years, with such distinctions of age and sex and classification of causes of death as may enable us estimate how far each district of England is affected by the several chief kinds of morbific infuence. —*Lancet.*

ABORTION IN CASES OF EXTREME DEFORMITY OF THE PELVIS.—A correspondence published in the *Gazette des Hospitaux*, relative to the propriety of inducing early abortion in cases of extreme deformity of the pelvis, is at present engaging the attention of the French obstetricians. The discussion originated in a letter from Professor Finizio, of Naples, in which he stated that, having at that moment four pregnant women afflicted with deformities of the pelvis, whereby the antero-posterior (subpubic) diameters were reduced to from five to seven centimetres, and the pregnancy in one case being of six months, and in the others from three to four, he was desirous of obtaining from his French *confreres* some advice as to how he should act. "Here at Naples," he added, "there are still surgeons who would prefer waiting for the ordinary period of delivery in order to perform the Cæsarean operation." It is not the first time that this question has been seriously discussed in France. In 1852 the Academy of Medicine, after a lengthened consideration, pronounced a verdict which, without being absolute, favored the early induction of abortion, leaving at the same time considerable latitude to those following the precepts of the other school.

M. Pajot, in answer to Dr. Finizio, wrote shortly thus: Below six centimetres induced abortion seems to be the only course, and few accoucheurs in France hold a different opinion. At full period, with a diameter of less than six centimetres, I perform cephalotripsy according to my method—that is to say, I commence my operation as soon as the dilatation is sufficient, and repeat the crushing process as often as may be necessary, *without ever pulling*. The expulsion generally takes place spontaneously after the third or fourth repetition of the operation. With regard to the Cæsarean operation, which is the infancy of our art, it should be reserved for those cases in which the cephalotribe will not pass, and such are very rare. To allow a pregnancy of four months to run to its full period, when there exists but five centimetres of antero-posterior diameter, appears to me not only bad surgery but a bad action.

Next succeeded a protest from Dr. Stoltz, of Strasbourg, in which, in virtue of his seniority as a teacher of obstetrics in France, he deems it his duty to protest against such doctrines, and against so careless a contemplation of fœticide. "This is not the first time," says Dr. Stoltz, "that I have felt myself called upon to oppose this doctrine, English in its origin, the promulgation of which, upon the Continent, has of late years been attempted. This homicidal practice it is which bears the imprint of the infancy of art; and whilst a reaction is taking place in England, in France we are attempting to uphold superannuated opinions." These observations were unlikely to be passed over in silence by M. Pajot, who accordingly expressed himself as radically differing from the eminent accoucheur of Strasbourg. Within the prescribed limits of five centimetres diameter, so long as the cephalotribe can pass, he deems the Cæsarean operation inadmissible. "If the Cæsarean operation," he observes, numbers its successes by hundreds, it counts its failure by thousands. The act of choosing hysterotomy resembles the inspirations of the savage, who cuts down the tree in order to obtain the fruit."

Public opinion, in France, seems almost unanimously in favor of the views expressed by M. Pajot. During the last twenty years this teacher has been in the habit of putting the question to each of his pupils as to which alternative he would select, in a case of extreme deformation of the pelvis. "Out of nine thousand students of medicine, one only," says M. Pajot, "preferred that of the Cæsarian operation."—*Medical and Surgical Reporter.*

ORIGINAL PAPERS.

Polypus of the Uterus.

BY H. H. TOLAND, M.D.

UTERINE Polypi differ as much in their location as in form and size. The neck or pedicle is generally much smaller than the body—which varies from a pea to that of a tumor four or five inches in diameter. In color also we find every shade—from white to dark brown.

Authors describe three varieties—the glandular, cellular and fibrous. The glandular are produced by an enlargement of one or more of the glandular nabothi found in the cervix. They are sometimes numerous, small and not very consistent.

The cellular polypus is somewhat larger than the glandular, with a more distinct pedicle, and is composed of cellular tissues covered by a mucus membrane; it is generally of a yellowish or violet color, and resembles nasal polypi more than any other of the varieties, with the exception of being much less liable to return.

Fibrous polypi do not differ from this variety of tumor found in other parts of the body, are less vascular than either, being solid or containing cavities filled with fat, hair, bones, etc. They occur more frequently between the ages of thirty and forty. Their causes either predisposing or exciting, are not known, as they visit alike the married and single. The most remarkable and inexplicable symptom is hemorrhage, being generally excessive, which ultimately produces all the consequences of anemia, loss of appetite, vomiting, diarrhœa, anasarca, and sometimes serious effusions into the cavity of the chest, abdomen, and even upon the brain. In a great majority of cases all the symptoms of pregnancy exist, even to the menstrual irregularity; and having during the past year met with every variety, they will be presented in the order in which they occurred.

CASE I.

In March, 1862, Mrs. C., aged forty, after having suffered excessively from uterine hemorrhage and its consequences for two or three years, was persuaded to submit to an examination with the speculum, by which I found a glandular polypus, about an inch long, protruding from the os uteri.

Assisted by Dr. Bush, of this city, a ligature was applied, and the polypus being vascular and small, it was detached in three or four days without either pain or hemorrhage. In a few weeks the same symptoms returned, and another examination exposed four smaller tumors, which had probably been concealed by the one operated on: these were detached with the ordinary polypus forceps, and caustic potash applied to the parts from which they were detached to prevent reproduction. Eleven months have passed since the operation, her menstrual discharge has entirely ceased, and as soon as she recovers from the constitutional disturbance resulting from the important change in life which has recently occurred, her healtn will be as good as before the existence of the polypus.

CASE II.

Mrs. N., aged 35. When admitted into St. Mary's Hospital in April, 1862, was suffering excessively from weakness in the loins and a weight in the lower part of the abdomen, with pain in the lower extremities. The digestive organs were greatly deranged, and she was unable to leave her bed. Believing that she was suffering from organic disease of the uterus, an examination was made with the speculum, and a cellular polypus, about two inches long and distinctly suspended by a pedicle, was found to occupy the upper portion of the vagina. This was removed with the forceps, and was neither followed by pain nor hemorrhage. Her recovery was rapid. Two months after the operation, Dr. Lee, the Resident Physician, who assisted me at the time, examined the patient and found her entirely cured, having neither inflammation nor ulceration of the os uteri. A few days since I heard of her as enjoying perfect health.

CASE III.

Mrs. R., aged thirty-six, the mother of one child and a widow for five years, had for nearly that period suffered, as she supposed, from excessive menstruation, which had impaired her general health but little, until a few months before I was called to prescribe for a distressing derangement of the stomach, accompanied by an obstinate diarrhœa, with the greatest irregularity of the heart I have witnessed. Thinking these symptoms resulted from uterine disease, an examination was made which exposed a cellular polypus two inches and a half in length and about an inch at its greatest diameter, with a very small pedicle. A few days after I removed it with polypus forceps, without pain or hemorrhage, and on the following day she was attending to her ordinary duties. All the symptoms of gastric derangement speedily disappeared, the menstrual discharge is natural, and her health perfect.

CASE IV.

Mrs. F., aged thirty-five, naturally strong and healthy, had suffered for several years from excessive menstruation, but was able to pursue an active business without much interruption until last summer; while on a visit to a neighboring city she flowed so profusely that she was confined to her bed for several weeks. Her physicians after making an examination, came to the conclusion that she had prolapsus uteri. On her return to San Francisco she placed herself under the care of a homœopathist, who pronounced it the same as her previous physician, and treated her with astringent solutions, etc. When I saw her she was unable to leave her bed, was perfectly anemic, with a bad cough, difficulty of breathing, and threatened with hydrothorax. I found by the touch that the vagina was filled by a firm, solid tumor, attached to the uterus by a small pedicle, and that the os uteri was most probably healthy. So soon as the hemorrhage was controlled, having attached to Græfe Serre-Nœud, or knot-tier, a strong ligature composed of half a dozen threads of silver wire, assisted by Dr. Fourgeaud, it was passed over the tumor and applied to the pedicle; being gradually tightened, the polypus was detached in about thirty minutes. The patient, although but partially under the influence of chloroform, suffered but little pain from the operation; she lost only two or three ounces of blood, and in three days was able to leave her room, and is now in good health. The ordinary ecraseur not being applicable to such cases, Græfe's instrument modified by Dupuytren, was substituted and answered admirably. Dupuytren who was the highest authority in Surgery during his day, never ligated a uterine polypus. When large they were removed with strong curved scissors, and if small, with the forceps; which, according to my experience, by subs.ituting in suitable cases the ecraseur for the scissors, is the best course of treatment.

Partial Excision of the Calcaneum.

BY G. L. SIMMONS, M.D., SACRAMENTO.

DISPLACEMENTS of the anterior portion of the calcaneum either from fracture or dislocation, and without lesion of the soft parts, are admitted by surgical authorities to be of rare occurrence: indeed, some of the older writers on Fractures and Dislocations ignore the subject altogether, and others appear to doubt the possibility of an accident of this nature. Dr. Hamilton, in his late invaluable work on "*Fractures and Dislocations*," refers to the subject, and says:

> "The calcaneum may be broken directly under the astralagus, in which case the lateral and interosseous ligaments will prevent anything more than a slight displacement of the posterior fragment."

The following case is reported as one of infrequent occurrence. The displacement as will be seen, was the result of great violence, and the projection of the anterior part of the calcaneum was so marked that no one could examine the case without having his attention arrested by its peculiar features:

H——, an Irishman, aged 33 years, of good habits and excellent constitution, called to ask my advice in May, 1862. He stated that "in Sept. of the previous year, while working in a neighboring town, he had fallen into a shaft forty-five feet in depth. He had alighted upon his feet and was removed, with severe injuries to feet and ankles. Under surgical treatment he had recovered the good use of one foot, but he could not step on the sole of the other without severe pain, particularly at one spot near the heel. Owing to this fact he was obliged to use crutches and could get about only with difficulty. For the last two months the pain upon pressure had rather increased than diminished, and he was on his way to San Francisco to see if some operation could not be performed for his relief." An examination showed a hard and unusual prominence on the sole of the foot about twelve lines anteriorly to the insertion of the "Tendo Achilles," and near the outside of the plantar surface. As felt beneath the soft parts, which were much thinned, the point seemed to be about the diameter of an ordinary marble, and pressure upon it with the finger caused considerable pain.

As it was reasonable to suppose that a displacement of this nature but poorly protected by soft parts would prevent the patient from ever wearing a shoe with comfort, I told him that an operation was advisable for the purpose of removing the bone which was near the surface.

Some days afterwards he again called at my office and stated that "he had found doctors to differ so much in regard to the safety of an operation on the bones of the foot that he felt afraid to have it performed." Since obtaining my opinion he had visited San Francisco and showed his foot to a number of medical men, but one of whom advised the removal of the bone.

In the following month, however, he wrote to me from Folsom to the effect that he was suffering so much while attempting to walk that he felt willing to allow the operation, that he wished me to come up and perform it at once, and that he had arranged with Dr. Powell of that town to assist me and take charge of the case subsequent to the excision. The operation performed was similar to that mentioned by Erichsen, an illustration relating to which may be found in his "*Science and Art of Surgery*," and also in "*Gross' late System of Surgery.*" The patient being placed under the influence of chloroform, I carried a horse-shoe incision around the entire heel, on the margin of the sole of the foot. The large flap was then dissected up, the knife being kept near the calcaneum until the prominent point was completely exposed; with gouge, mallet and forceps, this was removed in several pieces without difficulty, the flap returned and kept in place by silver sutures. At one point (the most dependent) a small tent of lint was introduced down to the bone to prevent union by first intention and keep a way open for the necessary discharges.

In less than two months afterwards the patient called to see me without his crutches and walking with an ordinary cane.

From Dr. Powell I learn that the line of incision healed by first intention, with the exception of that part which was purposely kept open. His treatment was of the simplest and most rational character, and consisted in the employment of moderate compression and cool applications. Eighteen days after the operation the patient was on the street, and in six weeks dispensed with crutches. He is now able to walk with comparative ease.

SIMULATED DISEASE.—The Russian Government have ordered that a division of the Military Hospital at Kiew shall be devoted to the detection of simulated diseases.—*London Lancet.*

U. S. Marine Hospital Reports.

BY JOHN HASTINGS, M. D.

CASE OF HEMIPLEGIA.

C———, a native of New York, aged 50 years, seaman, was the subject of this rather peculiar attack.

He is a stout, hearty man of steady habits, and had "never had a day's illness" until thus seized.

History. He was eating his breakfast one morning, with good appetite, and not a premonitory symptom of the least nervous disturbance about him, when he suddenly experienced a perfect inability to convey his coffee cup to his mouth.

He immediately mentioned this to others at the table, and at the same instant endeavoring to rise from his chair, he discovered the loss of power to extend down the left side and limb.

There was not anything resembling an apoplectic fit, no loss of consciousness, not a nervous quiver of the features.

His *Condition* upon entering the Hospital Dec. 6th, 1862, the day after the attack was as follows. Complete hemiplegia of the left side, with almost loss of sensibility in the affected part; no facial distortion, not even when the tongue was protruded; speaks slowly, but with distinctness; eyes are equally senible to light; pulse very slow and full; urine scanty and high colored; bowels obstinately constipated.

Treatment was as follows: He was freely purged with the oleum tiglii gtt. j; large blisters were applied over the spine. Friction to the affected side ordered with the petroleum liniment (coal oil) which produce a copious crop of pustules. Hot bricks were applied to the extremities. The diet was nutritious, of a liquid character. He was also ordered to take

Quinine gr. ij
Ext. nux vomica, gr. ss.
Misce. Bis in die.

Dec. 9. The ol. tiglii has operated very freely. He is now purging to such an extent that he is ordered

Nit. argt. gr. ¼.
Pulv. opii, gr. ss.
Misce. Ft. pil. One after each passage.

Dec. 10. Ordered to stop the quinine and nux vomica, and begin upon

Tinctura stramonii, ♍ xx. Bis in die.

Dec. 19. A perceptible improvement. He is able to move the leg and arm in some slight degree. Ordered to double the dose of the tinct. stramonii.

January 1st, 1863. He is sensibly progressing towards recovery. Can move both arm and leg with more ease, while his general health is everything that can be desired.

January 20th. With assistance he is now able to walk a few steps. He complains somewhat of darting, stinging pain, and a disagreeable sensation of heat in the affected parts. The blisters to the spine are continued, and friction, with mustard and water ordered to the arm and leg.

February 4th. He is so far improved as to be able to exercise upon the galleries of the hospital. There is but little dragging of the left foot. He can raise the hand as high as his mouth. He is entirely free from pain, and bids fair to make a rapid recovery.

BIBLIOGRAPHICAL NOTICES.

THE INSTITUTES OF MEDICINE.—By Martyn Paine, A. M., M. D., LL. D., Professor of the Institutes of Medicine and Materia Medica in the University of the city of New York; Corresponding Member of the Royal Verein fur Heilkunde in Prueussen; Corresponding Member of the Royal Medico-Chirurgical Academy of Turin; Corresponding Member of the Gesellschaft fur natur und Heilkunde zu Dresden; Member of the Medical Society of Sweden; of the Montreal Natural Society; and of many other learned societies. Seventh edition. pp. 1130. New York: Harper and Brothers, publishers, Franklin square. 1862. For sale by Bancroft & Co., Montgomery street, San Francisco.

SINCE 1847, when the "Institutes of Medicine," of Dr. Martyn Paine made its first appearance, the merits of the work have been fully appreciated and acknowledged. As an evidence of this, we have now before us the seventh edition of this remarkable repertory of medical erudition and philosophy, in which the doctrines of vitalism and solidism are most ably and elaborately expounded.

To do full justice to the subject, a review of the different systems which have prevailed in our science since its birth would be necessary. It would also be indispensable to dwell on the different and opposite theories which are now advocated by eminent men in our profession. But as the limited space of our JOURNAL will not permit us to undertake this long and laborious task, we shall merely give our opinion of the general principles on which the work is based, while expressing in as few words as possible our medical profession of faith.

The nervous influx or vital principle—the solids—the fluids—such are the three indispensable conditions of life, constantly and repeatedly represented in the history of our science, from the days of Hippocrates up to the present epoch, by three corresponding systems–vitalism, solidism, humoralism.

Humoralism, overlooking the solid parts and the vital action, refers all diseases to the fluids. "The humeral pathologist neglects the study of visceral lesions, and when he turns his attention to the digestive system, he only considers its secretions, and not its actual condition or the state of its sympathies. His sole purpose is to evacuate sordes, or to produce a flow of healthy bile, and to eliminate depraved secretions; and this he attempts without possessing any knowledge of the effects of disease of the digestive system or other organs."

Solidism, forgetting the fluids and the nervous influx, attributes all diseases to lesions of the solids.

Vitalism, neglecting in its turn the fluids and the solids, makes all organic action depend entirely upon the vital principle.

Each of these different doctrines is supported by a certain number of unquestionable facts. Each of them has its strong and weak points—truths blended with errors—for not one of them can be perfect in itself, because it is impossible to establish a satisfactory system exclusively on one or even on two of these essential conditions of life.

This is, however, precisely what medical philosophers, from time immemorial have attempted to do—and the result has, therefore, invariably been, that their respective systems which, for a time, seemed to have complete sway over the entire domain of our science, have, sooner or later, fallen into oblivion to be replaced by some other equally as unsatisfactory, because it did not comprehend these essential and fundamental principles. The error has been to exclude either of these conditions; for all three are in a state of indissoluble connection and dependence on each other. The origin of diseases and the causes of death may be found alternately, and even at the same time, in each of them.

Since the days of Van Helmont and Stahl, when vitalism had the sway, the humeral and chemical doctrines of life have been in the ascendancy. Indeed, materialism seems to have had absolute control of the whole field of our science, and the essential vital properties, which preside over every function, have too often been entirely lost sight of. In the work before us, on the contrary, whilst the vital properties are constantly kept in view, sufficient importance is not given to the fluids.

But although we differ with the learned and venerable author in some of the opinions he entertains, we cheerfully repeat what is generally acknowledged, in saying that he maintains his position throughout the entire work with superior ability and remarkable consistency. Many of the points against humoralism and organic chemistry are well taken, and although the work often assumes a controversial character, considering the nature of the subject, we cannot see how this apparent defect could have been avoided.

The views of the author on the excito-secretory system are original and highly interesting, and among other things he is entitled to the honor of priority in designating the nervous mechanism through which the secretions are physiologically influenced.

The work of Dr. Paine is an extensive store-house of medical erudition. No American author has ever exhibited more industry and perseverance in so wide a field. Every page shows an intimate familiarity with the general literature of the science and his earnest advocacy of the influence of the nervous action, is sustained throughout the volume with so much talent and ability, that however widely we may differ on some points with him, we acknowledge that we consider his work a most valuable cyclopœdia of medical literature, justly entitling the venerable and accomplished author to a high rank among the great philosophers in our science.

A Practical Treatise on Dental Medicine: being a Compendium of Medical Science, as connected with the Study of Dental Surgery. By Thomas E. Bond, A. M., M. D., Professor of Special Pathology and Therapeutics in the Baltimore College of Dental Surgary. Third edition, revised, corrected and enlarged. pp. 411, Philadelphia: Lindsay and Blakiston. 1863. For sale by A. Roman & Co., 417 and 419 Montgomery street, San Francisco.

The favorable reception of this work by practitioners and students of dentistry has called forth a third edition, in which the author has made such alterations and additions as will undoubtedly enhance the usefulness of the book.

The subjects treated in the work are of primary importance to the dentist; for no one can justly claim to be a good dental surgeon who does not possess general information respecting the causes, symptoms and treatment of the different affections, not strictly belonging to practical dentistry, but having close and intimate connectien with it.

The book is also useful to the general practitioner of medicine, especially for the numerous examples it affords of obscure diseases for which the dentist is not generally called upon at first, but which have their true origin in the teeth and alveoli.

In the work before us, the author has performed his task in a manner alike creditable to himself and profitable to the student.

Hand Book Almanac for the Pacific States.—An Official Register and Business Directory of the States of California and Oregon, the Territories of Washington, Nevada and Utah; and the Colonies of British Columbia and Vancouver Island. For the year 1863. Edited by William H. Knight. San Francisco: H. H. Bancroft & Co.

We beg leave to call the attention of our readers to this little volume, which has recently been published by H. H. Bancroft & Co. in this place. In addition to its time calendar, it contains a comprehensive summary of information on various subjects in which we are all interested—civil, military, political, etc., etc. We cheerfully recommend it as one of the most useful books of the kind that has fallen under our notice.

The late Pro. Traill.—The last edition of the Encyclopædia Brinannica owes much to its excellence to the indefatigable exertions of Dr. Traill, its editor. More than four hundred of its articles were written by himself, while he carefully examined and made important corrections in the whole work.—*London Lancer.*

EDITOR'S TABLE.

The Bill to Suppress Quackery in California.

AMID the multifarious avocations of society, there are none involving deeper and holier responsibilities, none demanding higher intellectual endowments, none entitled to greater respect than the medical profession; yet how little is it regarded in this country. And why is this so? Because, if the profession is noble, philanthropic and scientific, its ministers are too often the reverse. Men who are unable or unfit to earn a livelihood by other means, often assume the title of DOCTOR, without even attending the requisite (eight months!) lectures, to receive a diploma. These men have but one object—that of making money. Having no reputation to lose, no standing to maintain, and no principle to restrain them, they assume an impudent boldness, which imposes on those unable to discern true merit from mere pretension. Knowing nothing of the difficulties of the science, in fact ignorant of everything pertaining to it, they present themselves as discoverers of infallible remedies.

Human weakness and credulity can always be depended on for a revenue by unscrupulous charlatans. The celebrated Dr. Meed, regretting that a man of learning, and one who was capable of distinguishing truth from falsehood, had chosen the latter, one day urged him to abandon his deceptions. How many persons, said the charlatan, do you think pass daily in the street of Hanover Square? Twenty thousand, replied the Doctor. Well, continued the Quack, out of these, how many possess common sense and a correct judgment? Five hundred. The proportion is certainly too great. One hundred. The number is still exaggerated. They agreed at last that by putting the number at ten, they would not be far from truth.

Let me then, continued the Quack, collect from nineteen thousand nine hundred and ninety the tribute they owe me, and I will not object if the remaining ten accord you a merited confidence.

Charlatans have always existed, and will for ever continue to feed on the the ignorance and credulity of the masses, because, like certain parasites, though they may kill the body from which they derive support, they themselves continue to live. We will not, therefore, waste time upon them. Indeed, we think that our State Legislature acted wisely in tabling a recent bill against that ancient order of speculators on human gullibility—for the object would not have been accomplished.

We would rather wage war on the diplomated Quack—the Quack, M.D. Alas! we are compelled to avow that these especially bring discredit on the profession. Not better qualified than the first to practice the science, but armed and shielded with their diplomas, like the ass of the fable with the lion's skin, they are our worst, our most pernicious enemies. The Quack is resorted to as a Quack. The diplomated Quack is called upon as a physician. He will undercharge all others; he will speak with contempt of every one's practice save his own, he will resort to every means, however dishonorable, to obtain patients—by insinuations, inuendoes, false dealings, etc., etc. Unfortunately, even in our midst, men holding positions which should place them altogether above unfair practice, too often forget the principles laid down in the honorable code of medical ethics.

But there are, also, in our young State a large body of physicians meriting in every respect the confidence and regard of their fellow-citizens, as well as the esteem of their fellow-practitioners. They form the nucleus around which we would advise the younger members of the profession to gather; for it is only by a scrupulous observance of the rules, laid down in our code of ethics or, in other words, *by a gentlemanly conduct* that the respectability of the profession can be maintained.

Port and City Physician.

A bill has recently been introduced in our State Legislature to create the office of Port and City Physician in San Francisco. "The Governor shall appoint the first incumbent to hold office until the next general election, and after that time the office shall be filled by election. It shall be his duty to attend to the sick and wounded in the Hospital, City Prison, County Jail, examine all persons detained under suspicion of insanity; he shall examine all sick persons on board of any vessels just arrived in port; and he shall keep a record of the name, age, sex, nativity, date and cause of death of every person who may die in the county. He shall receive as salary the sum of ——— dollars."

We cannot too strongly condemn the provisions of this bill, imposing as it does upon one individual duties which it would require three or four at least to do justice to. We are curious to know who is the ubiquitous physician capable of performing such manifold labors.

Another objectionable feature of the bill is that it makes the office elective. No physician of respectability and standing in the profession would be likely to obtain the position through the ballot-box. It would, undoubtedly, fall into the hands of some one more skilled in wire-pulling and electioneering than in the practice of medicine. Furthermore, it would be a cruel injustice to render our sick poor dependent upon the chances of a general election in a matter involving health and life, and in which professional ability should be the *sine qua non.*

We should, however, like to see the clause of the bill respecting the establishment of a Registrar's Office become a law. Such an office is absolutely necessary in a city as populous as ours.

HEALTH OF SAN FRANCISCO.—During the month of January there were 160 deaths recorded: 108 in the Lone Mountain, 50 in the Roman Catholic, and 2 in the Jewish cemeteries. Of these, 37 were under three years and 14 still-born.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

On the Average Duration of Cases of Phthisis.

BY DR. HILL,
Physician to the Eastern Dispensary, Bath.

In an elaborate paper, in which he analyses 220 cases of pulmonary consumption occurring at the Brompton Hospital, and to which we have had to refer previously, Dr. Hill says:

"In a practical point of view, the most important thing for the medical attendant to be acquainted with, is the probability of present improvement in any individual case at any time that it may present itself to his notice, to assist him in which, amongst other things, the chief elements for consideration may be enumerated as the question of emaciation, whether the patient have been losing or gaining weight recently, whether night-sweats are present or absent, and the condition of the pulse. How far the latter may be considered as a guide will be seen by the following statement of 108 patients (male and female) in whom the pulse was above 100 at the time they came under observation, only 32·4 per cent. improved during the time they were under treatment; and of ninety-six in whom the pulse was at or below 100 per minute, 63·6 per cent. improved. Profuse nocturnal diaphoresis will usually be found in concurrence with rapidity of pulse, and indicates in the same manner in a general way advance of the pulmonary affection. Sixteen such cases, in which the diaphoresis continued unchecked in spite of treatment, got rapidly worse or died within a comparatively short period, whilst in nearly every case of cessation of the night sweats a corresponding improvement in other respects took place.

"The advance or arrest of emaciation may, as a rule, be looked upon as a very good indication of the condition of the patient, a gain betokening improvement; and a loss of weight indicating in almost every case advance of pulmonary disease. The emaciation so constantly attendant upon tubercular disease of the lungs is probably due to two circumstances—1st, defective nutrition; on account of the accompanying vitiated state of the digestive organs, and the retention of fat by the liver, evidenced by that fatty condition of the organ so frequently found in connection with pulmonary phthisis, which is the result of resorption and retention of fat, and not of a fatty degeneration in its ordinary sense; and, 2dly, the decreased pulmonary surface available for the aeration of the blood: for if in the healthy body a certain amount of lung-tissue is provided, through which the blood circulates in a given time, in order to maintain the due interchange of elements necessary to the waste and repair of a certain weight of organized tissues, we may fairly conclude that a decrease in the weight of the body is necessarily attendant upon a decrease in the amount of permeable pulmonary tissue. To show how important and useful a criterion we have in the observation of the emaciation or otherwise of the patient, I may mention that of forty-six patients who experienced a loss in weight of from two pounds and upwards, only five showed any symptoms of improvement generally, all the rest having become worse, in most instances with a degree of rapidity commensurate with the loss of weight; whereas, in sixty-three patients who gained weight to any marked amount, there were decided symptoms of general improvement in all, with more or less disappearance of physical signs in thirty-eight. In the other twenty-five the physical signs advanced, notwithstanding improvement in general health—that is, passed from the first to the second stage, or from the second to the third stage—which circumstance leads me again to notice the error of considering these conditions of lung as stages of the disease; for if a patient has sufficient strength of constitution to sustain the demand during the process of excavation, he is oftentimes, after the formation of a cavity, placed in a condition not only of greater ease and freedom from cough, but also much more favorable to the prolongation of life.

"The occurrence of hæmoptysis is also said to be a symptom of chronicity, and such would appear to be the case from the fact, that of forty male and female patients in whom it took place, in some even to a considerable extent, an average duration of 2.6 years is yielded; whilst of an equal number who never had hæmoptysis, an average of only 1.8 was the result. These statements may, however, be interpreted inversely, that those in whom the disease has continued longest are in the same propor ion more likely to have had an attack of hæmoptysisis at some period or other, though I think that in most of the hæmopytis cases this symptom usually shows itself at an early stage of the disease, and therefore the idea of attendant chronicity may be lawfully used to allay the excitement and terror of those who are the subjects of these hemorrhagic attacks.

"In females we have an additional element in the catamenial functions, which we can call to our aid in forming an opinion as to the probable issue of a case, and its importance in prognosis will be seen by the accompanying groups of cases. Of nine patients in whom the disease had existed for a period of twelve months or more, and in whom the menstrual functions continued in a normal state, only two got worse whilst under treatment, an average of only about 22 per cent. Of twenty five patients in whom there had been evidence of pulmonary affection for half a year and onwards, with absence of the catamenial discharge for at least three or four months, twenty lost ground with more or less rapidity, an average of 80 per cent.; and the most unfavorable cases, or those least amenable to treatment, will be found amongst those in whom the catamenia disappears nearly at the same time, or very shortly after, the pulmonary affection is manifested. Its reappearance in any case will, I believe, be always found coincident with some general re-establishment of health; for though its absence must not be considered incompatible with improvement, recovery under these circumstances very seldom occurs in any marked degree.

"From these facts, then, we may conclude that for any individual case free from the more dangerous complications, the average duration of two and a half years may be expected; and this period will be more or less prolonged, and a degree of present improvement may be anticipated, according as the case in question presents those symptoms which are indicated above as warranting a favorable prognosis."—*Ranking's Abstract.*

Use of the Forceps in Tedious Labor.

Dr. Hamilton, of Falkirk, made a communication to the Edinburgh Obstetrical Society (Nov. 27, 1861) on this subject, and began by explaining that he had first been led to the publication of the results of his obstetric practice in consequence of a statement respecting the mortality of forceps cases, contained in a review of Dr. Murphy's work in the *Brit. and For. Medico-Chir. Review*, for October, 1852. When he (Dr. H.) was first about to commence the practice, he had been greatly struck by the observation made by Dr. Reid, who had probably been known to many of the Fellows present as a skillful and experienced accoucheur, to the effect that forceps might be used in cases of tedious labor much more frequently than they were, not only without danger to the patient but to her advantage. Having found other trustworthy practitioners of the same opinion, he (Dr. H.) had acted on the hint, and from that time when he first began to practice, in 1833, up to 1852, he had employed the forceps in a large proportion of cases of labor, and the results of his experience had only confirmed him in his opinion of their safety and usefulness. He had then been astounded at seeing a statement of Dr. Murphy as to the great fatality in forceps cases; and having himself been under the impression that the use of the forceps was rather gaining ground, he had determined to investigate the correctness of conclusions so entirely opposed to those he had himself arrived at. "The question," as he had stated in a paper he then wrote on the subject, "to be discussed is presented to us in a condensed form at p. 422 of the *Review* referred to, the general conclusions deducible from the statistical facts collected by Dr. Murphy being—1st. That in the forceps deliveries occurring in 78,892 midwifery cases in the hands of British, French and German practitioners, nearly 1 in every 4 of the children were stillborn. 2d. That, in protracted labors, 'so far as the children are concerned, the proportion stillborn is very much the same, whether the forceps be employed or not; the difference, if any, being in favor of leaving these cases to nature.' 3d. 'That the use of instruments is to be discountenanced in all but exceptional cases of this kind, in which the habit of the patient is too feeble to admit of her enduring a protracted labor without risk of exhaustion.' 4th. That Ramsbotham employed the forceps once in 729 cases, Joseph Clarke once in 742, Collins once in 684, Kilian once in 78, Carus once in 14, Siebold once in 9; and 'Dr. Murphy's recommendation is to employ them only in cases of positive arrest,' unless dangerous constitutional symptoms are present." As opposed to this high mortality from the use of the forceps, he (Dr. H.) had adduced the results of his own practice, and had stated that, whilst using the forceps in every seven or eight cases of labor, he had delivered 316 children, all of whom had been born alive. He had subsequently published an article in the *Edinburg Medical Journal*, claiming for the use of the forceps the same continued immunity; and now he could point to 731 children consecutively born alive, in the delivery of from 90 to 100 of which the forceps had been employed. He (Dr. H.) thought that this startlingly favorable result indicated that the mortality which was usually attributed to the employment of the forceps was rather due to the delay in their application. He believed his practice represented very fairly that of a general country practitioner; though perhaps now that he had acquired more experience, the proportion of difficult cases coming under his care might be somewhat above the average, and he now found that cases which he once thought dangerous and difficult became comparatively easy, simply from his constantly following out the principle of not delaying too long the application of the forceps. Remembering the great law that the mortality in parturition increases with the duration of the labor, and believing that the danger was greatest in those cases where the delay occurred during the second half of labor, he was always anxious to shorten this stage by every means compatible with the safety and well-being of the patient and her progeny. The first stage might go on for many hours, sometime for days, without involving the patient in any risk, and he almost never in any case interfered until after the completion of the first half of labor. But even in an otherwise apparently normal case, if the child's head remained longer than two hours in the maternal pelvis, and the pains were at all severe, he then believed that the child's life was becoming endangered, and he never hesitated in applying the forceps. He had now employed the forceps in about 200 cases, and he found no danger whatever if the head had not been allowed to become impacted. He employed the forceps in most cases as a direct extractor, but in some cases also to rectify the position. In one patient he had found it necessary to employ the forceps in nine out of her twelve confinements, although her pelvis was sufficiently roomy, in consequence of the fœtal head failing to make the necessary turn in the pelvis. And now he might be allowed to state what he did not do. In the first place, he now almost never used ergot of rye in any midwifery case. He had rarely at any time employed it as an adjuvant in the first stage, and latterly he had also refrained from administering it during the second portion. He had no prejudice against the drug, but he had never been able to see that it fulfilled any good indication during the first stage of labor, and gradually he had come to give up its use altogether, so that he had not administered it to one of his last 400 parturient patients. Secondly, he never greased the forceps, as in lectures and text-books we were instructed to do. He thought the greasing unnecessary, because there is usually no difficulty in introducing the instrument, and the unguent interfered with the firm hold of the fœtal head, which was necessary to permit of due tractile force. When he first went to Falkirk he had attended a case along with an old practitioner, where the patient was delivered of twins, both of which were born dead after a tedious labor. On Saturday last he had attended a case of precisely the same kind, where he did not doubt that he would have had the same unhappy result of producing two stillborn children, had he not extracted the first child with the forceps after its head had been but a short space of time on the perinæum: as it was, both children lived. He had described a case where he could not get the head of the child brought into the pelvis in a right direction, and where, after long-continued efforts with the forceps to rectify the position of the head had failed, in consequence of its always turning round again, he thought from the opposition presented by the rectum, he had at last to perforate the head and deliver by craniotomy. He had recently met with a similar case, where the head lay in the left oblique diameter occipito-anteriorly, but could not be brought down into the pelvis until he had turned it by means of the forceps through three-fourths of the circle of the pelvic brim, so that at last it presented occipito-anteriorly in the right oblique diameter.

Dr. Hamilton maintained that the forceps was preferable to turning, because he had seen several children born dead where the latter operation had been employed, and in one case the vertebræ of the neck had become dislocated whilst the child was being extracted, so that delivery could not be completed until the fœtal head had been opened. He always used Ziegler's forceps, and usually applied them after the head had descended so far into the pelvic cavity as to allow the tip of the ear to be easily felt by the finger. In reply to a question put by Dr. Moir, Dr. Hamilton repeated that he had not had a single stillborn among 731 children that he had delivered successively; and in reply to a question by Dr. Figg, he (Dr. H.) explained that although he had delivered some children that died very shortly after birth, yet he did not count a child stillborn if it continued to breathe, if only for five minutes.—*Edinb. Med. Jour.*, Oct. 1862. *Am. Journal.*

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TREATMENT OF ACUTE DYSENTERY BY THE NITRATE OF SILVER.—M. Duclos considers that dysentery always commences at the lowest part of the large intestine, and if such be the case, then he argues that the local medication of this part must arrest the disease and prevent its extension, or at least must modify its virulence, even in the worst cases. Local treatment being, therefore, admissible in this disease, the beneficial effects will be in proportion to its employment at the earliest period. Dr. Duclos was induced to employ nitrate of silver as the remedial agent from observing its well known efficacy in purulent ophthalmia, aphthous eruptions in the mouth, and other such affections, and also from witnessing the practice of M. Trousseau, who employs this salt with great success, both by the mouth and in injections, in cases of simple enteritis in very young children. M. Duclos treats dysentery in the following manner: a slight laxative is first administered, such as a small dose of calomel or seidlitz powder, in order to unload the intestine of fecal matter, and then a simple mucilaginous enema is thrown into the rectum. When the laxative and the injection are both evacuated, an enema is administered, consisting of twenty-five centigrammes of nitrate of silver (a centigramme is .1543 of a Troy grain) in one hundred and fifty grammes of water (a gramme is about fifteen grains), together with some laudanum if necessary, but the latter is only added if it is quite impossible to retain the enema for a few seconds. The enema is kept in the rectum for from four to ten minutes, and then allowed to return, and as it has been administered immediately after an evacuation, it is certain that the silver salt has been in direct contact all the time with the diseased surface. An enema is thus given night and morning, and M. Duclos has even given three in twenty-four hours; and this treatment is continued for several days, with the double view of avoiding constipation, which is the habitual attendant of true dysentery, and of giving the enema immediately after a dysenteric evacuation has cleansed the last portion of the intestine. The results of this treatment are, that in general the stools are rapidly modified both in frequency and composition. Most frequently, from the period of the fourth or fifth enema, they become less frequent, and also less bloody and slimy; the tenesmus also diminishes with great rapidity, and the pain produced on pressure on the left side is less acute. No bad results were observed to follow this treatment, but sometimes an excessive irritability of the anus or the rectum rendered it necessary to change the form of administering the injection. The dose of the nitrate of silver was then reduced, or a greater or less quantity of laudunum was added to secure its tolerance by the intestines. Dr Duclos has employed the nitrate of silver in the manner described in a great number of cases of dysentery, and often with great success, and he records five cases at length. His views have been confirmed by the observations of other practitioners, and they may be summed up as follows: 1. The nitrate of silver, administered at the commencement of acute dysentery, in appropriate doses, constitutes a remedial agent which has produced very excellent results in Dr. Duclos's hands 2. Its action has been equally efficacious, whatever may have been the age of the patient, and in all the forms of dysentery. 3. In certain cases, when administered quite at the beginning, and always in injection, it has seemed to exert, at the end of a few days an almost abortive action upon the disease.—*American Journal from British and Foreign Med.-Chir. Review.*

Utility and Superiority of Metallic Sutures.

M. **Ollier**, Surgeon to the Hotel-Dieu, Kyon, terminates a series of papers with the following conclusions: 1. Metallic sutures are less irritating than those of vegetable or animal origin; they divide the tissues less rapidly, are sooner and longer tolerated, occasion less suppuration in their track, and leave less apparent cicatrices. 2. It is not only on the results of a great number of operations in which we have employed these ligatures that we base our statement of their superiority, but also upon comparative experiments rendered as rigorously exact as possible; the advantages possessed by the metallic sutures of the same size over the organic become still more striking when the very delicate metallic threads, which we call capillary, are employed. 3. The more delicate the thread is, the less it iritates and divides the tissues, this division being the result of ulceration, and not a mechanical action; in order that this advantage be realized, the flaps must not be submitted to too violent traction, for pressure being then exerted on an excessively narrow line, the thread acts in some sense as a cutting instrument; to prevent this inconvenience, the number of sutures must be multiplied, in order to distribute the resistance over a great number of points. 4. The superiority of the metallic threads consists in the following circumstances: (1) their delicacy, for we may give them the fineness of a hair, and yet preserve sufficient resistance; (2) the constancy of their volume, while organic threads notably increase in this through imbibition of the discharges; (3) the polish of their surfaces and their impenetrability by putrefiable fluids; and (4) the fixity with which they maintain the edges of the wound in contact, while the organic sutures become relaxed and float in their track when ulceration has commenced. 5. Of the various metals from which sutures may be made, iron is the most suitable, by reason of its greater tenacity and the facility with which it may be procured; by covering it with an unoxidizable metal, all the advantages are conferred on iron which appertain to other metals, which it might seem desirable to substitute for it by reason of their resistance to the reaction of organic liquids. 6. For autoplastic operations, iron threads of a greater fineness than have hitherto been employed are very suitable; of the delicacy of a hair, they still possess sufficient resistance to allow of their being manipulated with safety and convenience, while so slight is the irritation which they give rise to (being, so to say, forgotten by the tissues), that they are often tolerated without giving rise to suppuration; they may be multiplied without inconvenience, and they may generally be employed without covering them with gold or tin; when they are intended to remain long within the tissues the iron should be galvanized, but in no case has their oxidation hitherto given rise to any serious inconvenience. 7. Metallic should, then, replace organic threads in all kinds of sutures; when they are fine, they are very easily passed through the tissues, and can be fixed by a greater number of procedures than the organic threads; their removal from amidst the tissues in deep-seated regions (as the vagina, velum of the palate, etc.), is the sole difficulty contingent on their employment, but this inconvenience cannot be considered as counterbalancing their advantages; the capillary threads are the only ones which are supple enough to admit of being easily removed. 8. It is a useful practice to use sutures of different sizes for different parts of the same wound; capillary threads are of great utility as "perfectioning sutures" in autoplasty, when it is our object to obtain a perfectly exact union; for some operations large threads are required as "sustaining sutures," to bring and keep together the base of the flaps, the edges of which are maintained in contact by capillary threads. 9. Metallic sutures may be left longer within the tissues, and they thus become a precious resource in wounds which, uniting slowly, require that their edges should be kept a long time in contact. 10. They may be advantageously employed as setons in small abscesses of the neck and face, when we wish to avoid producing visible cicatrices. We may also make use of them for the ligature of bloodvessels, and they are especially adapted to the operation for varicose veins, allowing of the gradual division of the venous agglomeration by a very simple procedure.—*Brit. and For. Med.-Chir. Review*, Oct. 1862, from *Gaz. Hebdom.*, Nos. 9, 12, 17, 23.

Wounds of the Face.

In the course of one of his graphic and instructive letters on the medico-chirurgical events of the Italian campaign of 1859, translated for the *Amer. Medical Monthly*, Dr. A. Bertherand, of the French army, thus treats of these lesions:

Wounds of the face, generally complicated with fractures of the teeth or jaws, imperatively demand the extraction of splinters of the first and second order—that is to say, those which are loose and those which are somewhat adherent. To fulfil this indication properly, demands repeated examinations in the sinuses, the fleshy portion of the cheeks, and the nasal fossæ, under the tongue, and even into it when it is involved. When bony points protruding into the interior of the mouth, threaten the safety of the tongue, or lead us to fear a subsequent interference with its functions, or deformity, they must be carefully resected. The difficulty is thus greatly simplified, and the duration, so tedious to the patient, of the fetid discharge of wounds bathed in saliva, much abridged. These little operations, after which the wounds in question should usually heal well and rapidly, were often complicated at Castiglione with hemorrhages from the arterioles lodged in the anfractuosities and canaliculi of the bones of the face. The tampon not proving always successful in checking the flow of blood, we employed the persulphate of iron, which M. Monsell has proposed to substitute for the perchloride; our experiments are not yet sufficiently conclusive to enable us to pronounce definitely on the relative efficacy of this styptic. I give a few especially remarkable specimens of this kind of lesion.

A., a corporal in the 62d of the line, was struck under the lobe of the left ear by a ball, which penetrating transversely and horizontally, passed out under the lobe of the right ear. I introduced successively my finger and a female sound along the course of the projectile, and discovered that it had grazed the posterior columns and posterior surface of the velum of the palate and lacerated the tonsils. There was no hemorrhage nor a single splinter in this wound, which, when we consider the nature of the parts which surround it, was truly extraordinary.

M. M., a captain in the 11th Regiment of Artillery. The ball entered the middle lip, and passed out the mastoid process of the left side. Destruction of the symphysis of the chin; extraction of a large splinter; hemorrhage arrested by the persulphate of iron.

C., 1st Zouave, 3d Battalion, 4th Company: ball passing from the right commissure of the mouth to the middle of the ascending branch of the maxilla of the same side. Extraction of several splinters at the orifices both of entrance and exit. Removal of two teeth left entirely bare.

Captain S., of the Engineers; a ball entering under the symphysis of the chin, and passing out between the lower lip and the anterior surface of the corresponding incisors. The margin of the bone is cut and broken, without destroying the continuity of the inferior maxilla.

In the case of G., a private of the 34th of the line, the ball before penetrating the superior maxilla of the left side, between the ala of the nose and the labial commissure, lacerated the cheek in such a manner that the face presents a hideous spectacle. After having washed the wound and removed all the splinters, Principal Medical Director Leuret proceeded to adjust the lacerated strips of flesh by means of interrupted sutures, and succeeded in accomplishing a very useful restoration of the lip and nostril.

One of the most interesting incised wounds of the campaign is, unquestionably, that of a Lieutenant D., of the Mounted Chasseurs, who received a sabre-stroke across the face at Solferino. The entire lobe of the nose, with portions of the cheeks, and a considerable extent of the upper lip were detached. Being thus turned inside out, they fell, by their own weight, in front of the chin, leaving bare the superior dental arch, the anterior segment of which was separated, with its four incisors, two canines, and one molar. A suture, very dexterously applied by M. N. Perier, Principal Medical Director, so perfectly adjusted the borders of this immense solution of continuity that the external deformity is scarcely noticeable. The loss of a part of the palatine arch, indeed, interferes somewhat with articulation; but this difficulty can easily be remedied by the aid of an artificial obturator.—*Cincinnati Lancet.*

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How to Relieve Pain in Diseased Bladder.—The presence of urine and more especially of uric or phosphatic calculi or concretions at the *bas-fond* of a diseased bladder, sometimes produce violent pains in the bladder, and render all movement painful. In such cases, if the patient be placed on an inclined plane, which, by raising the lower part of the pelvis, throws the contents of the bladder, throws the contents of the bladder towards the upper and posterior part of the cavity (which is much less sensitive), relief is almost immediately produced, even though other means have been tried in vain.—*Brit. Med. Jour.*, Feb. 1, 1862, from *Rev. de Ther. Med. Chir.*, Dec. 1, 1861.

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New Means of Distinguishing Diabetic Urine.—M. Paillon, of Sainte-Foy-lez-Lyon, has observed that diabetic urine, if allowed to stand for ever so long a time exposed to the air, does not, like ordinary urine, emit any smell of decomposition. A specimen which had been exposed to the air during a fortnight had only become somewhat lighter colored and a little muddy, but gave out no nauseous odor. This urine was submitted to M. Burin de Buisson for analysis, and he failed to discover any sugar; but, on being told of the length of time which had elapsed since the urine was passed, he examined it again, and readily discovered alcohol, into which the sugar had become transformed. M. Paillon suggests that the absence of odor after long exposure to air would form a useful test of the presence of sugar in urine in cases where the physician might not have chemical reagents at hand.—*Lon. Med. Review*, Aug 1862, from *Gaz. des Hop.*, 3 juillet.

Remarks on Hernia.

BY GEORGE LEWIS COOPER, ESQ., F.R.C.S.

THE frequency of this disease has long been the remark of experienced surgeons, at the same time it is well known, and a matter of daily observation, how little attention is paid, or alarm created, at the appearance of these swellings, until pain or urgent symptoms present themselves. It has been stated that one in every fifteen of the human race is afflicted with rupture, yet how comparatively few seek, and how tardy are these in seeking, for means of prevention or security whilst the danger is latent, or the enemy in ambush! For many years, both from public and private experience, I have directed my attention to this circumstance, and been enabled to observe this frequent concealment, as well as the diversified appearances and characters of the disease, and with what difficulty we can at all times satisfy ourselves as to the real nature of this affliction, owing to the changes, or morbid condition, of the neighboring tissues, arising from adhesion or constitutional causes. Its hereditary character is a fact long observed by me, showing an inherited relaxation in the muscular fibre, and proving a serious detriment to the public services. The tendency of all classes and ages, and of both sexes, to be afflicted with hernia is well known to all surgeons, and clearly proves that the peer and peasant are alike amenable to the laws of nature, and must bow with humility to that hand which directs all things. Still, how regardless of danger are many, treating this unsuspected evil with contentment and composure.

The protrusion of a portion of bowel from its proper cavity is in itself a sufficient cause of alarm. Although for a season it may exist, and create mere functional derangement, at an unsuspected moment, from distended bowels or unusual exertion, the sufferer may be thrown into an abyss of danger, where, unless a ready and experienced aid can be procured, he is speedily beyond the reach and power of man. I have often known this gloomy picture to occur, and have deeply deplored the inadvertency and neglect of self-security—lives risked and endangered, as in females, from a sense of modesty, or in our own sex from ignorance or procrastination.

I do not purpose in this paper to enter statistically into the subject of hernia, or at any length to treat upon its characters or varieties, but mainly to point out the importance of an early attention to these swellings, whether they appear in childhood or manhood, whilst the hour of safety is at hand, and not to be deferred until "that of darkness, when no man can work." In adding a few practical remarks, I will urge upon every surgeon these two lessons—namely, in the first instance, to avert the hour of danger, by attention at the earliest stage. Provided the testicles have descended into the scrotum, a well constructed truss may be worn in infancy, and continued until the aperture is closed; and, at a later age, an instrument which possesses power and aptitude, without harshness and false pressure, should be recommended. And, in the second instance, when the case has passed into a different stage, where, from inattention or some accidental circumstance, the bowel has become impacted and strangulated by neighboring parts, a more decisive and active treatment demands his attention. The usual means resorted to in the taxis for restoring the rupture to its proper cavity must be employed; but if failure attends his exertions beyond forty-eight hours, as danger is rapidly approaching, the bowel must be liberated from its incarcerated state by operation, and returned with gentleness and care to its right position. At the same time he must be prepared for certain changes in the anatomical coverings of the hernia, as well as anomalies in the distribution of the arterial system, rendering the case manifestly more difficult, and, of course, more darkened.

Before concluding this paper, I must mention a case which I operated upon in the month of May, 1862, as it illustrates each point alluded to by me, and may prove a practical lesson for those who are eager to confer the blessings of science upon humanity, or to practice their profession with honor and distinction to themselves. On the 12th of May last, I was sent for to visit Eliza T——, aged forty-one, married, and has had six children. Her general health has always been good, excepting occasional attacks of dyspepsia and colic from flatulence. She has had a double rupture since her childhood—in other words, a femoral hernia on each thigh—but has never consulted a surgeon from modesty. On the previous evening (Sunday), whilst in church, she was suddenly seized with excruciating pain in the abdomen, which compelled her to return home and retire to bed. Sickness continued throughout the night and following day, attended with great prostration. These symtoms she attributed, and I believe with reason, to a hearty dinner. On the evening of the 12th of May I first saw her. She was suffering from a strangulated femoral hernia on the right side; slight tenderness existed in the tumor; pulse eighty; the countenance anxious. The bowels were relieved on the previous day, but are generally much constipated. Manipulation failed to return the bowel. She was ordered a grain opium pill every four hours; ice to be applied constantly.

May 13th.—She passed a bad night; the sickness continues; the pulse eighty-two. Manipulation whilst the patient was under the influence of chloroform failed. Ordered an enema immediately, and the pills to be continued.

14th.—No improvement. An operation proposed, and consented to.

The usual parts, down to the sac, were carefully dissected out, and Gimbernat's ligament freely divided. Still the stricture remained; but on opening the peritoneal sac, the obturator artery, which passed close to its neck, was cut, and for the instant bled profusely. This vessel having been secured instanter, the bowel was returned without any difficulty. In the evening the rectum was relieved of its contents, also on the following day, and in three days after the operation, the wound was healed, and she now walks about wearing a double truss.—*London Lancet.*

Brief Notes of a Case of Preternatural Labor, Followed by the Cæsarian Section.

BY DAVID JOHNSON, M.D.

ON Thursday evening, August 7th, 1862, at half-past six, I was sent for to E. M———, in labor of her first child, having gone the full period of gestation. She was seventeen years of age, very short in stature, and unmarried, and had been very rickety when a child. She was under the care of a midwife, who requested my assistance. On my arrival, I ascertained that she had been in labor about twelve hours, but that her pains had ceased for some time. She was greatly depressed and restless, her pulse quick, and tongue much furred. On examination, the right hand lay in the vagina, with about eight inches of the cord prolapsed; while a little higher up both feet could be felt, evidently right and left. High up beyond the brim I could detect the head, but there was very little available space, and the parts were exceedingly dry and hot. With some little difficulty I grasped the feet, intending to bring them down and deliver by turning; but after using what I considered warrantable extending force several times, I ultimately abandoned that idea; and passing my hand at this juncture as high as I possibly could, revealed a pelvis which, at its brim, did not appear to be more than two inches and a half in diameter. My impression was, that to turn or alter the position was utterly impracticable.

Finding the case a bad one, I sent for my friend, Mr. Thompson, a surgeon of much midwifery experience, who remained with me for some hours. Every effort at delivery proved unavailing. The top of the vertex of the child being within reach, we determined upon craniotomy, which, after emptying the bladder, I performed through the anterior fontanelle; but although the whole of the brain was evacuated, with several portions of the cranium, yet with all the exertion we dare use by the aid of the crotchet and Dr. Davies' forceps, the head still maintained its position, not moving the slightest degree. Finding it, therefore, impossible to accomplish the delivery, and feeling assured that it ought not to be delayed any longer, I proposed, lastly, the Cæsarian section, to which Mr. Thompson, Mr. Pope, and Mr. Finch, after a fair trial to deliver, agreed. In this we were disappointed for several hours, not being able to gain the consent of the patient, while her friends lived ten miles away. By this time, which was sixteen hours after I first saw her, she had become restless, hot and feverish, with a pulse risen to 130. She, however, at length consented, and I performed the operation at one o'clock on Friday, in the usual manner, in a temperature of 76 deg. There was little hemorrhage, and she bore the operation with great fortitude, and at its completion expressed herself greatly relieved.

I saw her at two o'clock, being an hour after the operation. Her pulse was 134 and weak, and there was a little oozing through the vagina; and she complained of pain. I gave her two grains of solid opium, which relieved her. The abdomen, at four o'clock, was considerably swollen, but not tender upon pressure. She had vomited twice since I last saw her, but had taken food and drink at intervals of ten minutes in minute quantities. At six she seemed better, and retained everything; had voided urine several times, and the discharge appeared natural. At eight the abdomen was very tympanitic, and she complained of great pain across the chest; respiration was hurried, tongue very dry, and pulse mounted to 141; no sickness; had slept well nevertheless, and expressed herself better.

From this time she went on satisfactorily until Sunday morning, when she was attacked with rigors and vomiting, her pulse rising to 144, respirations 40, breathing labored, tongue highly coated, face flushed, and had wandered a good deal the last few hours. I saw her at eleven o'clock, and she expressed herself better. Soon after I left her she desired to be raised a little, and sank instantly, having survived the operation forty-six hours. I could not obtain the sanction of her friends for a post mortem examination. —*London Lancet.*

Illegitimate Births.—The illegitimate births per annum, in London, is 4 per cent.; in Paris, 33 per cent.; in Brussels, 35 per cent.; in Munich, 48 per cent.; and in Vienna, 54 per cent.

The Registrar General of Antigua reports that during the quarter ending Sept. 30th, last, there were 194 births, of which 100 were illegitimate. The number of deaths during the same quarter was 460.—*Lancet*, Jan. 10, 1869.

On the Employment on Glycerine in the Treatment of Diseases of the Eye.

BY W. ABBOTS SMITH, M.D., M.R.C.P., LONDON.

NOTWITHSTANDING the fact that glycerine is largely used as a bland, emolient application to the skin in several affections of that delicate membrane, its importance as a remedial agent in certain diseases of the conjunctiva appears to be considerably underrated, though several marked points of analogy exist between the two structures.

Having been induced some time since by the perusal of a paper published in the *Bulletin de Therapeutique* by M. Fouche upon this subject, I have given a fair trial to the topical employment of the glycerine, both uncombined and as a substitute for water in the preparation of collyria; and the results have been such as to warrant me in recommending its use in some of the forms of ophthalmia, and other superficial affections of the eye.

The application of *pure* glycerine uncombined, is decidedly advantageous for the prevention and removal of the hard crusts produced by the irritation which are occasionally closely adherent to the eyelids in ophthalmia, which disorder they consequently tend to perpetuate.

In ectropion, and in cases of partial loss of the eyelashes, glycerine forms an agreeable and efficient application; and it will also be found similarly useful in epiphora, and in any other superficial diseases of the eye which are dependent upon diminished secretion by the Meibomian glands. Amongst these may be especially mentioned the peculiar condition of the conjunctiva to which Von Ammon gave the name of Xerosis Conjunctivæ, in reference to the dry cuticular appearance of the eyeball, and which is most commonly met with in persons of scrofulous diathesis who have long suffered from chronic ophthalmia. The free play of the eyelids upon the front surface of the eyeball is preserved by the topical employment of the glycerine; and the tendency to symblepharon, or to an uncomfortable temporary adhesion of the eyelids, which occurs after sleep is counteracted.

Unctuous applications are always preferable to watery solutions in ophthalmia, both because they are not so readily washed away by the tears, and because they more closely resemble the natural greasy secretion of the Meibomian glands, by which the conjunctival surface is lubricated in the healthy state; and the circumstance that glycerine alone, when employed locally, is highly beneficial in the ophthalmic affections already referred to, also points to that substance as a valuable vehicle in the preparation of collyria.

M. Foucher enumerates in his paper a long list of medicaments with which he has combined glycerine in the treatment of ophthalmia in numerous cases which had come under his care at the Hospital des Enfanis. The substances which I have found to be most usefully employed in this form are the the sulphate of zinc, the sulphate of copper, and laudanum; but M. Foucher also combines glycerine with the perchloride of iron, with borax, with tincture of iodine, and other agents.

It should be here stated that nitrate of silver, owing to the chemical action which ensues upon its coming in contact with organic matter, cannot be used conjointly with glycerine; and it further remains to be mentioned that the glycerine should be well purified, in which condition it is perfectly neutral, does not possess any odor or taste, and does not produce irritation when it is applied to the eye.—*London Lancet.*

PRODUCTION OF CARBONATE OF AMMONIA IN THE BLOOD IN URÆMIC POISONING.—Dr. Alex. Petroff, of Dorpat, has published some very important researches, which go to support the theory of Frerichs. The object of these investigations was chiefly to examine the validity of Oppler's statements founded on experiments of his own, in opposition to Frerichs. Oppler stated that Frerichs' second and third inductions were incorrect, and that the theory based on them was therefore groundless. He declared that after artificially producing uræmia in animals (by removal of the kidneys or ligature of the ureters), he was unable to detect carbonate of ammonia in the blood or secretions; and, moreover, that the injection of carbonate of ammonia into the venous system of animals fails to produce any symptoms truly comparable to those of uræmia. He declared that in uræmia, as Hoppe had long since srated, the quantity of urea and extractives in the blood, and the quantityof extractive in the muscles, was abnormally increased. Dr. Petroff's present investigations were made with the sanction and assistance of Professors Bidder and Schmidt. Dogs and cats were chloroformized, and the operatlon of nepheotomy carefully performed. After recovery from the chloroform, the jugular vein was opened, at various distances of time from the operation, and the blood received into two vessels each containing absolute alcohol. One of these portions of blood was to be tested for urea, a few drops of acetic acid were added to this, and the mass allowed to stand for twenty-four hours in a cold place, filtered, and the filtrate evaporated to a dry mass, which was repeatedly washed with water and with absolute alcohol, and then set aside to crystallize over sulphuric acid. Prismatic needles of urea were thus obtained, and the presence of urea was confirmed by other tests. The other portion of blood, examined for carbonate of ammonia, was received also into absolute alcohol and then at once distilled, the distillate being received into dilute hydrochloric or sulphuric acid of known strength. The quantity of *free ammonia* was thus decided: while the ammonia in combination was estimated by the examination of the residue left from the distillation. The bile, the contents of the stomach, and other fluids of the body, were also examined for ammonia. Dr. Petroff also made a series of very careful experiments on the comparative effects of injections of ammonia into the blood, and the artificial production of uræmia. The following are the general conclusions at which he arrives: 1. When the kidney function is interrupted, carbonate of ammonia is formed in the blood. 2. Injection of earbonate of ammonia into the blood produces symptoms strictly comparable to those of uræmia. 3. The degree in which these symptoms appear, and their character, depends on the proportion of ammonia in the blood, and the circumstances under which it exists there.—*London Med. Review*, Nov. 1862, from *Virchow's Archv.*

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OVARIOTOMY IN LONDON.—Ovariotomy seems to be prevailing epidemically in London. The number of the *Lancet* for Dec. 20th last, contains notices of 75 cases of this operation. Of these, 43 are said to have recovered and 26 were fatal; in three cases the operation was commenced but not completed, and in three an exploratory incision was made in aid of diagnosis, in one with a fatal result.

In connection with this subject we must not omit to notice the *modesty* of the editor of the *Lancet*, who, in an editorial in the number just quoted, claims Ovariotomy as *a triumph of British Surgery!* He observes: "This noble operation—for the saving of 50 per cent. of poor creatures from absolutely impending death surely deserves the epithet—is essentially a triumph of British Surgery."—*Med. News.*

TREATMENT OF CHRONIC SWELLING OF THE BURSA PATELLÆ, BY PUNCTURE AND THE INJECTION OF A SOLUTION OF IODINE.—Dr. Robert Kirkwood states (*Glasgow Medical Journal*), that the ordinary method of treating chronic swelling of the bursa patellæ, being troublesome, painful, and tedious, and the result seldom satisfactory, he was induced, in 1859, to try the effect of puncturing the tumor, evacuating its contents, and injecting a solution of iodine. The result was satisfactory, and he has now treated three cases by this plan.

His "first case was that of a young woman, a domestic servant, who more than a year before had observed a small, painless swelling, for which she could assign no cause, in front of her right knee. It increased slowly in size, and when I first saw it, was about as large as an orange, and soft and fluctuant. She complained only of weakness and inconvenience which it occasioned her. I punctured the swelling at the most dependent point, and after evacuating the straw-colored serous contents, injected a solution of iodine and retained it for a minute or two. The canula being now withdrawn, a piece of lint was placed over the wound, and a short straight splint applied along the limb and retained with a roller. The following day the patient complained of a little pain in the knee, and there was also slight swelling, which was fluctuant. I passed a probe along the course of the puncture, and evacuated a small quantity of brownish-colored serous fluid. There was no constitutional disturbance; the local was so trifling as scarcely to deserve mention; and by the fifth or sixth day, I forget which, the knee, though a little weak, was perfectly well.

"The second case, also occurring in a young domestic servant, bore considerable resemblance to the first, with the exception that from its history it appeared to be the consequence of an attack of acute bursitis; and besides the weakness and inconvenience to which it gave rise, was at times more or less painful. It was treated in precisely the same way and with the same satisfactory result.

"The third case occurred in a young man, a joiner, and was more recent than the others. The stiff, firm, leathery feel of the tumor gave the idea of a thickened sac, and this, after puncture, was found to be the case. The contents were sero sanguineous. On two different occasions I passed a probe along the course of the puncture to evacuate a small quantity of fluid; but in five days the knee was well, though by my advice patient did not resume his work till the expiration of a week from the date of the operation.

"It is now about three months since I operated on this case, and the cure up to this date seems perfect. Some thickening still remains, but under the use of iodine paint it has diminished considerably. The second case was operated upon in June of last year. The patient has gone from under my observation, but her knee, her mother informs me, is strong and well, and shows no indications of anything having ever been the matter with it. I saw my first case the other day; no trace remains, and patient states that her knee is as strong as ever.

"In each case, in consequence of a slight feeling of weakness remaining after the operation, though less than before it, I recommended an elastic knee-cap to be worn for a few weeks, by the end of which time the feebleness had disappeared."—*Am. Journal.*

DR. G. A. DAYTON reports, in the *American Medical Times*, two cases of tænia expelled by the use of pumpkin seeds. Dr. D. remarks, in regard to this remedy, that to make it almost a specific, "the seeds should be thoroughly bruised, so that the particles can come in contact with the head of the worm; also that fasting is absolutely necessary to enable the remedy to accomplish its work."—*Cincinnati Lancet and Observer.*

ORIGINAL PAPERS.

Case of Gunshot Wound of the Orbit followed by Loss of Vision—Partial Recovery.

BY GERRARD GEO. TYRRELL, M. D, AND R. C. S. I.

OWEN KIRWAN, æt 35 a strong, muscular man, was shot on the 22nd September last. He was standing on his wagon at the time the pistol was discharged, his assailant being on the ground and close to the wagon. The bullet entered close to the external canthus of the left eye, fracturing the external orbitar and internal orbitar processes of malar bone and passing directly backwards lodged on squamous portion of temporal bone, close to external meatus of left ear. The wound was circular, with ragged inverted edges, and through it protruded a small muscle with tendon attached. The course of the ball was marked by a puffy œdematous swelling, of a dark livid color; the eyelids were much swollen and ecchymosed, and the conjunctiva deeply injected and chemosed. On introducing a probe into the wound the malar bone was found much commuted, and the fragments chiefly imbedded in the temporal fossa. Exactly in front of the ear externally could be felt a hard angular substance, which I proceeded to cut down upon, as I found it could not be reached through the wound. On making the incision I at once exposed a large piece of bone, irregular in shape and surface. On removing this, I came upon the ball, which was completely flattened. Having extracted the bullet I closed the wound, and ordered cold to be applied to the eye. The hemorrhage was very trifling, he felt sick and faint, but did not lose consciousness at any period; after receiving the wound he was able to walk to his cabin, which was some distance from from the scene of conflict. Ordered:

℞ Hydr. sub. mur. gr. vj.
Pulv. Jalap gr. x ♍.
Fiat pulvis.
Cap. i, sextus horis.

Sept. 23. Vomited three times yesterday, not since; pulse 72; tongue clean; skin moist; eyelids much swollen; chemosis severe; scarified conjunctiva. Repeated pulv.

Sept. 24. No sleep last night from pain in the wound; no vomiting, headache, or other symptom of evil omen; passed a probe into the wound and discharged a quantity of saonius matter with great relief; endeavored to extract a piece of bone, but as it was not detached did not deem its removal then judicious. Poultice wound.

Sept. 27. Wound suppurating freely; swelling of lids almost gone; chemosis subsiding; pupil widely dilated, sensible to light; extracted three small spicula; ordered continuance of poultice; repeat pulv. omne die.

Sept. 29. Wound suppurating; is able to open the eye; chemosis gone; conjunctiva still injected; pupil dilated, but sensible to light. He now, for the first time since the accident, discovered that he had lost the vision of the injured eye; he says he can tell when the window is opened, but cannot fairly distinguish light from darkness; everything seems red or lurid looking, and occasionally, when he looks steadfastly with the injured eye, the sound one being closed, he sees "fiery stars" shooting backwards and forwards. Ordered:

Pulv. opii. gr. iii.
Hyd. chlor. gr. xii.
Divide in pulv. xii.
Cap. i sextus horis.

Oct. 3. Mouth slightly sore; wound suppurating freely; externally the eye looks well; conjunctiva has a yellowish tinge; pupil sensible; can, by rotating the eye very much outward, distinguish two fingers out of five; he cannot, however, see the whole five at one and the same time; neither can he discern any object placed directly in front; he says the darkness, when he looks forward is more intense, and the red or lurid appearance has nearly disappeared. As he imagined the spicula still remaining in the track of the wound were the cause of his blindness, and being anxious for their removal, I made an incision over the temporal fossa and through the tempora muscle, until I came down on a pretty large fragment which I extracted; it proved to be a portion of internal orbital plate. I now removed two smaller fragments, and ordered stop pulv., continue poultice.

Oct. 6. Had a severe attack of dysentery, which yielded readily to treatment. Vision no better.

Oct. 9. Enlarged my former incision, and removed two pieces of bone, one a portion of external angular process of frontal bone, the other a portion of molar. Vision has slightly improved, as he can now distinguish four fingers by rotating the eye very strongly outwards, and two fingers by rotating the eye inwards; directly in front he cannot see anything.

Oct. 13. External wounds all healed; eye looks quite normal; vision same as last report.

From that date up to the present (Feb., '63) I have seen him frequently. He can distinguish an object, placed either at the right or left, by rotating his eye, but cannot distinguish any object placed directly in front. His health is good, and he is able to pursue his avocation, as a ranchero, without inconvenience.

The diagnosis of this case must necessarily be imperfect from want of opthalmoscopic exploration, but the symptoms denote either lesion of the optic nerve the result of concussion, or extravasation of blood upon the retina.

The case is interesting from the close proximity of so severe a wound to the eyeball without, as far as could be seen, organically injuring that organ. The movements of the eye are complete, and in appearance with the other no appreciable difference can be observed. If, however, you watch him closely you can detect a certain fixity and vacuity of expression in the injured eye when directed straight forward, which reveals the defect in vision. He does not complain much of the inconvenience of this defect, but says he is sometimes puzzled, for a moment, when he turns his head suddenly, as then he sees double.

Grass Valley, February, 1863.

United States Marine Hospital Reports.

BY JOHN HASTINGS, M.D.

CASE OF ACUTE CYSTITIS.

The patient was a stout, robust man, of seven and twenty, was admitted to the Hospital January 24, 1862. The history which he gave of himself was that having been exposed to a violent rain storm, in a few hours thereafter he felt the first symptoms of illness, viz.: acute, darting pains in the bladder and loins, great difficulty in micturition, with but little urine.

He at once placed himself under medical treatment, but receiving no benefit therefrom,—in fact, growing rapidly worse,—he at length sought relief from the Hospital on the tenth day of the attack.

His *condition*, upon entering, was as follows: Features flushed and heated, with an extremely rapid, small pulse; extremities cold; rigors followed every attempt to urinate, and this he was incessantly forced to do; the only result being the passage of a few drops of urine, tinged with blood. Cramps in the bowels and stomach occurred nearly every hour. His bowels were constipated, no motion having taken place for above three days.

He was badly salivated, and swallowed with great difficulty.

Treatment. A dose of calomel and jalap—*a a* gr. x—was immediately ordered, to be followed in four hours by sulph. magnes. ℥j, which had the effect of freely opening the patient's bowels. A large blister (Brown's blistering tissue) was applied over the hypogastrium. Heated sand-bags to the extremities, and the following to be taken thrice daily:

℞ Iodidi potass. grs. x;
Tart. antimon. et potass. grs. ss;
Misce cum aqua ℥ss.

Diet liquid and nutritious.

January 26th. But little improvement is yet manifest in the urine, though the cramps have ceased, and he is able to rest a little at night.

Ordered, in addition, the spts. nitre dulc., diluted to one-eighth, of which a wine glassful is to be taken three or four times daily. Ordered a mouth wash of borax and gum water.

January 28th. Ordered, comp. cath. pills iv, and the bladder to be injected daily with four ounces of a saturated solution of hydrastis Canadensis, warmed to a blood heat.

January 30th. The happiest effects have followed the use of the injection. The patient micturates with much less pain; the urine is losing its blood red color; he rests well; the rigors have entirely ceased, and he takes his food with some degree of relish. All the remedies continued.

February 3d. Still improving. All medicine per orum discontinued.

February 4th. Ordered comp. cath. pills iv.

February 5th. Convalescent. The injection of hydrastis Canadensis to be discontinued, as the patient now urinates in the natural quantity and without pain. Ordered the following:

℞ Sulph. quinine grs. iij;
Ft. pil. j. Bis die.

February 8th. Discharged well.

TREATMENT OF GONORRHEA.

Patients admitted with acute gonorrhea, are purged freely the first day, and kept quiet and placed on half diet for three days, after which they are, allowed full diet.

From the date of their entry, the urethra is injected night and morning with a saturated infusion of hydrastis Canadensis. The powdered root should be fresh, its remedial properties are lost by long keeping in the shop. Before each injection the patient is directed to urinate and lie on his back and retain the injection for nearly an hour. If he do not first pass his urine, to wash the membrane and allow the remedy to come in contact with it, little good is done. We give no medicine internally after the first purgative.

This treatment allays chordee and ardor urinæ almost immediately, and in the course of a few days the disease is removed.

We have used all kinds of treatment for this disease, but find the foregoing management of it produced a quicker cure, with less pain to the patient, than any other which has been heretofore recommended.

* * *

MICROSCOPICAL EXAMINATION OF THE AIR.—A series of experiments, originated by M. Revial at the Hopital Lariboisiere has shown the experience of a large amount of organic matter floating in the air. The dust collected from one of the wards contained thirty-six per cent., chiefly composing epithelial cells exhaling the smell of calcined horn or bone. In the air of those rooms where there are sufferers from contagious inflammation of the eyeball, small corpuscles were detached by the miscroscope, analogous to the virus thrown off by the inflamed eye. It is, therefore, to be assumed, on evidence strictly logical, if not absolute, that the infection is mechanically conveyed by the air.

REVIEWS.

Clinical Lectures on Diseases of Women—By J. Y. Simpson, M. D. F.R. S. E., Professor of Midwifery in the University of Edinburgh, etc. Illustrated with one hundred and two engravings on wood. Philadelphia: Blanchard & Lea. 1863. pp. 510. From the publishers. For sale by A. Roman & Co., Nos. 417 and 419 Montgomery street, San Francisco.

In announcing the American publication of the Lectures on Diseases of Women, by the eminent Professor of Midwifery in the University of Edinburgh, our pleasure is alloyed with a single regret, viz: that of not having sufficient space to do the work full justice and to extract copiously from its valuable pages. This regret, however, is lessened when we reflect that our readers will surely avail themselves of the earliest opportunity for procuring and perusing it with all the attention it deserves.

These lectures were originally published in the *London Medical Times and Gazette*, during the years 1859, 1860, and 1861, and Messrs. Blanchard & Lea, in reprinting them in volume form, have rendered an important service to the profession.

Lectures I and II are devoted to the interesting subject of vesico-vaginal fistula. After a full consideration of its cause, situation, and extent, diagnosis and prognosis, the treatment of the affection is dwelt upon, and several modifications are suggested. The author shows, by a reference to the *London Lancet* of November 29, 1834, that Mr. Gossett, formerly Surgeon of Newgate, London, had successfully performed the operation for the cure of vesico vaginal fistula by the gilt wire suture. The case of Mr. Gossett, however, attracted no attention whatever, at the time of its publication. It had, indeed, been totally forgotten when our esteemed countryman, Dr. Marion Sims, of New York, proved beyond dispute the great advantages of silver sutures, not only for the cure of vesico-vaginal fistula, but for that of other wounds. Dr. Simpson pays that gentleman a deserved acknowledgment by concluding his lectures on the subject with the following remarks:

> "To give you an idea of the pride, the just pride, with which our American brethren talk of their achievements in this department of Obstetric Surgery, let me read to you, in conclusion, what Dr. Francis, the learned and respected father of medicine in New York, has publicly said with regard to vesico-vaginal fistula, and the application of silver sutures for its cure by Dr. Sims. 'Prior to the discovery, surgery could do nothing for this formidable class of affections. In Germany, Dieffenbach, Jaeger, Wutzer, and others, had exhausted all their resources in vain. Prolific Germany seems, in this instance, to have been barren. In France, Desault, Dupuytren, Lallemand; and more recently, Jobert, Vidal, and their contemporaries, had been equally unsuccessful, and although Jobert claims a success that has never been demonstrated; and I fear that this eminent man, like the late Lisfranc, had

scarcely that devotion to practical results which the written annals of medical science demand from all who give publicity to their cogitations and the issues of their practice. In England, their greatest men, their Coopers, their Abernethys, their Lawrences, could do nothing. Nor have I learned that there has emanated from that practical school of medical and surgical learning, which sheds so much glory over Ireland, a single practical idea that can be truly said to have favored this improvement; and then he goes on to speak of the shortcomings of Scotland, and in terms too flattering for me to read here, he speaks of myself, as if in this matter I represented Scotland; averring that here, too, nothing had been done to promote the cure of vesico-vaginal fistula. But, perhaps, Dr. Francis may be induced to recall this observation when he comes to know the advantages which the iron thread-sutures, the hollow needle, and the splint of wire present in facilitating the performance of the operation, and in insuring for it a successful result."

The next subject—Cancer of the Uterus—is ably described in lectures iii, iv, and v, and in lecture vi, both carcinoma of the uterus and mamma are considered. Among the various means employed to arrest the hemorrhage in malignant diseases of the uterus, the perchloride of iron is considered the most efficient. We have had occasion to test the value of this agent in many instances, and have always been much gratified with the results. Our author says:

"Perchloride of iron was proposed, as you know, by some physicians and surgeons on the continent not very long ago, as a preparation which—when injected into the sac of an aneurism, or the cavity of a varicose vein—would produce coagulation of the blood in them, and so lead to the permanent cure of these morbid states. For stopping the hemorrhage from leech-bites, it is the best and readiest agent we possess; and for arresting the bleeding from small orifices over an extended surface, such as exist in piles, I know no better remedy. A gentleman in our profession, for whom I have a very high regard, told me, lately, of the great success which had attended its use in his own wife, who had long suffered from internal hæmorrhoids, which frequently came down and bled to a great degree. Six months ago, she had a very bad attack, at a time when her husband happened to be from home. There had been much hemorrhage, and she was reduced to great weakness and faintness. Though the wife of a doctor, she was one of those ladies who have a great and salutary aversion to seeing doctors professionally; and so when she sent one of the members of her family to ask me for something to relieve her, I sent simply some perchloride of iron in glycerine, with instructions to apply it on a piece of lint. The bleeding was checked by this means at once, and her symptoms relieved; and, what is better still, the hemorrhage has never since returned. In connection, I say, with hemorrhages from the uterus, it is likewise a most valuable agent, and may be applied in various ways. It deliquesces very readily, so that it cannot be kept and applied in the form of powder; but it may be made up for use into a medicated pessary. I apply it most frequently, however, on some lint or on a piece of sponge, to which a string is attached for its easy removal afterwards. Introduce a piece of sponge or lint partially dipped, or rather wetted in its centre, in glycerine, saturated with perchloride of iron, into the vagina; push it up to the os uteri, and leave it there for twenty-four hours; and usually you will find this result, that the bleeding is completely arrested, and there is no recurrence of it for a time. I sometimes see a patient at present in whom the hemorrhage from an ulcerating cancroid of the cervix had been allowed to go on for three months, under the idea that it was only an ordinary menstrual discharge of unusually long duration. Early in my attendance upon her there occurred a sudden and profuse drain, which rendered her almost pulseless. A sponge was applied, steeped in the solution in the manner I have told you, which at once put an end to the bleeding. There has been no recurrence of hemorrhage from that time to the present—a period of three months; but the disease is progressing in its fatal course, and lately has perforated the bladder, so as to allow all the urine to escape per vaginam."

In the lectures devoted to dysmenorrhœa, Dr. S. divides the affection into two classes according as it originates: 1, in the ovary, or 2, in the uterus. Uterine dysmenorrhœa is subdivided into several varieties dependent on different morbid conditions of the womb. The pages devoted to membranous dysmenorrhœa are particularly interesting. Dr. Simpson maintains that this is not an inflammatory exudation, but a desquamation or exfoliation of the mucous membrane of the uterus resembling in every respect the early decidua. The possibility of this monthly exfoliation from the interior of the uterus has been questioned by some authors, and especially by Dr. Ashwell. Dr. Simpson, however gives the following testimony in support of his views:

> "Let me merely add in regard to this form of dysmenorrhœa that more lately Handfield Jones has come to the same conclusion regarding the uterine casts, as that which I have explained to you, and that Lebert, Raciborski, and last of all, Virchow, have furnished additional proof of the correctness of our explanation. Virchow, indeed, has gone a step further than any of the others, for he tells us that in opening the bodies of women who have died while suffering from dysmenorrhœa, he has found the mucous membrane of the uterus in a state of partial separation; and has thus supplied a distinct anatomical proof that up till that time was wanting."

These cases are not common, and as the membrane is sometimes expulsed with coagulated blood in its interior, Dr. Raciborski observes that miscarriages in recent pregnancies might be mistaken for the membranous exfoliations. However, when microscopic examination shows the principal elements constituting the internal membrane of the uterus, and when the membranous expulsions occur regularly, there cannot be much doubt in the diagnosis. A remarkable case of this description is reported by Mr. Tyler Smith, in the *London Lancet*, of June 15th, 1855.

Scanzoni cites two women who could foretell a week or two before the menstrual period whether they would expel membranous bags. The precursory symptoms were griping and shooting pains toward the umbilical region. Of all the cases observed by Scanzoni, he cites only one in which the uterus was perfectly sound.

The remarks of Dr. Simpson on the treatment of obstructive dysmenorrhœa are very interesting. After having given a history of the means employed for its relief, our author says: "For some years past I have thought that the best and speediest mode of cure is to have recourse at once to dilatation of the os by incising it at both sides." The instrument used for the purpose by Dr. S. is a kind of concealed bistoury, for the description of which we refer our readers to page 118. Dr. Simpson states that he has performed the operation in a very great number of cases. "Last week," he says, "for example, I had recourse to it in not fewer than five cases. In fact, it has come with me to be the usual mode of treatment for all cases of dysmenorrhœa depending on contraction of the os, or cervix uteri."

After describing the operation the author observes:

"When you have thus divided either side you will feel that a conical opening has been left, the base of which includes all the thickness of the portio vaginalis uteri. The canal may contract to some degree afterwards when the wounds heal, and to prevent this I have sometimes made use of sponge-tents or intra-uterine bougies. But the introduction of these instruments in such cases causes pain and irritation of the raw lips of the wound; and you will find that by opening up of the wound every two or three days for a time with the finger, you can effectually prevent all union by the first intention, and in this way provide against the chances of a recurrence of the stricture; or you may touch the corners of the wound with a piece of nitrate of silver with a like good result. Hemorrhage may sometimes follow division of the cervix, more particularly if you cut too deeply in the upper portion of it, where you run the risk by so doing of wounding some of the veins of the plexus uterinus, and it ought always to be guarded against by plugging the vagina immediately after the operation with some pieces of sponge. In some few instances the hemorrhage is pretty smart, but I have never seen it occur to any very alarming extent. Inflammation may sometimes be set up and spread to the surrounding loose cellular tissue; and though this rarely goes on to any dangerous extent, yet you may expect sometimes to meet it, and you must always be prepared to treat it, and treat it according to the principles which I shall have to explain hereafter when I come to speak of pelvic cellulitis in general. Attended with such rare and slight risks, the operation is a very safe one, and there is only this further to be observed in connection with it, that unless all the fibres are fully divided, there is sometimes a chance of the wound healing too rapidly, and the stricture being reproduced. But altogether, I believe I am entitled to say that there are few operations in surgery so perfectly simple in their performance, and so entirely satisfactory in, their results, as division of the cervix uteri in cases of obstructive dysmenorrhœa and sterility."

In the presence of such assurances we must confess that we are not at little astonished to read the following in Aran's late work on Diseases of the Uterus, (Paris ed., 1860, p. 330,) when alluding to Dr. Simpson's method:

"These incisions are entirely abandoned at the present time, not only on account of the danger to which they expose patients, but principally because they do not prevent the stricture from reoccuring, notwithstanding every thing that may be done, even though the incised wound be kept open during several days with a metallic bougie."

Not only French but English authors appear to have been less successful than Dr. Simpson in the use of the uterotome. Dr. James Henry Bennet, or instance, in his excellent work on the uterus, records his experience in the use of that instrument in the following manner: (Fifth Am. ed., 1860, p. 263.)

"At one time I used Dr. Simpson's uterotome frequently, in order to divide the os internum, and found it a very efficient means of removing an apparent constriction at that region. A mere slit laterally, on each side, not more than a line in depth, which is scarcely felt by the patient, is all that is required to establish a free communication between the two cavities. In order, however, to make this slight incision, the instrument *must pass through the os internum*, as otherwise the blade could not be made to bear on the spot which it has to incise; and since I have carefully analyzed the state of this region, when free from disease, I have ascertained that a degree of openness, that admits the passage of the uterotome *through the os internum*, is in reality more than is generally met with in the healthy female; and that, consequently, there can be no sound reason for increasing it still farther. When, therefore, by means of the sponge tents, the cervical cavity has been dilated, and the os internum relaxed, so as to admit the passage of a moderate-sized bougie, or of the extremity of the uterotome. I now consider that the dilatation has been carried quite as far as is necessary or desirable, and consequently very seldom resort to the uterotome.

"After the os internum has been divided by the uterotome, there is generally a slight oozing of blood for a few minutes. Were no means adopted to prevent union, the incised surfaces would probably heal by the first intention in twenty-four hours; it becomes necessary, ther efore, to introduce a moderate-sized metallic bougie, taking care that it be pushed sufficiently far to pass the os internum. This bougie should be retained four or five days, if its presence is unattended with pain or discomfort; if otherwise, it may be withdrawn for a few hours, or even a day, and then reintroduced.

"By the above means the incisions may be prevented from healing, but in the course of a few weeks or months the os internum invariably closes again. I have never examined a patient on whom I had performed this operation, after a lapse of some time, without finding the os internum as much closed as at first. Nor is it surprising that this should be the case, the os internum being *naturally closed*, as I have elsewhere explained; so that any attempt to establish a permanently free communication between the two cavities of the cervix and uterus, is merely an attempt to establish what is not a natural condition."

After describing the various forms of closures and contractions of the vagina, and their mode of treatment, in lecture ix, our author devotes a page or two to a complication, following sometimes the mechanical dilation of the vagina, viz: fissures of the orifice of the vagina, which also occasionally result from other causes.

The lectures x and xi, on caruncles of the urethra, neuromata of the vulva, neuralgia of the vulva, abscess of the labia pudendi, and the various forms of vulvitis, contain much of practical utility.

Lectures xii, xiii, and xiv, are among the most important in the book; the more so because the subject—surgical fever—is one of interest not only to the surgeon, and the accoucheur, but principally because Dr. Simpson has treated this matter, which is scarcely alluded to in most of the English works on surgery, *in extenso* and in a masterly style. The statistics given on the mortality and lesions observed in cases after various surgical operations, as well as in puerperal fever, and the analogies he establishes between the latter and surgical fever, are highly interesting.

Lectures xv and xvi give an excellent description of phlegmasia dolens.

In lecture xvii, on coccyodynia and the diseases and deformities of the coccyx, Dr. Simpson describes, for the first time, a painful affection which he attributes to the action of the muscles connected with it on an inflamed or otherwise diseased coccyx. "All kinds of constitutional treatment and most forms of topical applications are often, however, almost or altogether of no avail for the cure of this disease; and the only means of obtaining radical relief—and happily it is a means which proves successful in almost every case—is the complete separation from the coccyx of the muscular and tendinous fibres that are in connection with it. To effect this, you must introduce a tenotomy knife underneath the skin, at a short distance from the tip of the coccyx, pass it along the posterior aspect of the bone, and then divide the muscular and tendinous attachments, first on one side and then on the other, and finally all round the tip of it. It is not in every case necessary to make such a free division as I have indicated. In some instances division of the fibres of the gluteus maximus of one or the other side will suffice, or detachment from the coccyx of the sphincter and levator ani may be all that is requisite for a cure. This simple operation is easy and rapid of performance, like other examples of subcutaneous surgery is not attended with bleeding, and is attended with no great degree of suffering; and the result is in almost every case instant relief of the pain, and in most cases a perfect and permanent cure of the disease."

Pelvic cellulitis and its treatment are considered in Lectures xviii and ix. In connection with this subject we may be permitted to express our regret that the Professor of Midwifery in the University of Edinburgh should have withheld the full credit justly due to the French physicians who, over thirty years ago, were the first to elucidate the subject of intra-pelvic inflammation, and have, since then, diligently continued to enrich our science with the results of their pathological investigations.

Dr. Simpson, while acknowledging that pelvic cellulitis is not described in any English systematic work on Midwifery or on diseases of females, published earlier than twenty years ago, says nevertheless that "*a full and distinct account* of the affection has been left us in the writings of various old Greek and Roman physicians." In proof of this, we are referred to Paulus Ægineta and Archigenes.

We regret that Dr. Simpson did not inform us in what part of the writings of Paulus Ægineta, we are to find that *full and distinct* account of the affection; but as he has not done so, it may not be improper to repeat here what Professor Nonat of Paris says on the subject, in answer to a somewhat similar statement from Dr. Bennet:

"Must we with Dr. Bennet go back to the writings of Paulus Ægineta for the first notice of the inflammatory engorgement of the cellular tissue which surrounds the uterus and its appendages? We have carefully sought in the writings of the old Greek surgeons for some valid claim to the honor of this pathological discovery. We have found only a single phrase which may be strained to justify the views of the English physician: '*Posteriore uteri parta inflammata,*' says Paulus Ægineta, '*in ombilico potissimum cum tumore infestat.*'"

Further on he speaks of the persistence of the inflammation "cum duritia', and of the inclination of the uterus on one side or the other. Now, we ask, would it not be misinterpreting the passage and committing the grossest error to deduce from it an indication of retro-uterine phlegmon. instead of a simple reference to the inflammation of the posterior parietes of the uterus? Especially when we find that quotation borrowed from a chapter in which the author speaks from beginning to end of the inflammatory diseases of the uterus, of their causes, their symptoms and of the therapeutical means adapted to them."

Dr. Simpson gives a long quotation from Archigenes, a Syrian physician who practiced in Rome towards the end of the first century of the Christian Era, by which he endeavors, with no better success however, to establish the claim of priority for the Roman physician also. In justice to the French pathologists, we would simply request the reader to compare the article of Archigenes, quoted by Dr. Simpson from the work of Ætius, with the modern descriptions of the disease given by Marschal de Calvi, Nonat and others.

No ancient Greek or Roman writer that we know of, certainly neither Paulus Ægineta nor Archigenes had an idea of true pelvic cellulitis or even of the nature and origin of the secondary abscesses thus formed. They considered them "*abscesses of the uterus.*" No doubt, the affection existed in ancient times as well as at present, but the ancients supposed that the seat of inflammation was in the uterus, and that the pus came from the cavity of that organ. We need no further proof of this than to take the very article quoted by Dr. Simpson, from Archigenes. We do not find a word in it in relation to inflammation or abscesses *of the intra-pelvic cellular tissue.* And it is only necessary to read the title of the quotation to see where the Roman physician located the abscesses described by him. It commences thus:

"OF ABSCESS OF THE UTERUS, FROM ARCHIGENES.

"Abscess in the uterus, as in other parts of the body, results from a previous attack of inflammation. In the first instance, therefore, the symptoms of inflammation will be manifested, and afterwards when the pus begins to be formed the pains are increased, and fever sets in with shiverings, mostly towards evening; a tumor is formed, and a pricking pain is felt; in some cases there is suppression of urine, and in others the evacuation of the fæces is interfered with, or both may be simultaneously affected. But the local pain will indicate the seat of the disease. Then, if it cannot be discussed, the suppuration must be artificially promoted, For this purpose poultices of linseed, fennel, barley-meal, boiled figs, mallow-root, or turpentine, are to be applied to the lower part of the abdomen and to the loins; or we may even sometimes apply pigeon's dung with oil and honey." etc.

It is unfortunately too apparent, that there exists between the English and French medical writers a rivalry which often leads them into injustice towards each other. This is not the spirit which should prevail in a science like ours. There is a fraternity which should have at least equal claims with nationality: it is the fraternity of the intellect.

In lecture xx, Dr. Simpson gives his views on Pelvic Hæmatocele, or as he terms it, Pelvic Hæmatoma. We have already expressed our opinion on the subject in a recent review, when we had occasion to refer to the gentleman's position. (In Vol. V. *Pacific Med. & Surg. Journal* for November, 1862, p. 349.)

The Lectures on spurious pregnancy, xxi and xxii, deserve a careful perusal. Our author gives an excellent description of the symptoms, the physical diagnosis, prognosis, pathology and treatment of the affection. In speaking of chloroform as a means of diagnosis, Dr. Simpson observes:

"I have no very satisfactory explanation to offer you of the nature of this very strange abdominal swelling, and of the peculiar phenomena observed in it, when the patient is in a state of anæsthesia. Some years ago I made a number of observations on some of our hospital patients, to try and solve the difficulty. Some medical friends, who had been told of the remarkable effect of the chloroform, were quite certain that the swelling must have been due to distension of the bowels with gas, which, they averred, must have escaped unobserved when the sphincter was relaxed during the deep sleep induced by the drug. But that this was not the proper explanation we easily proved by introducing a tube into the rectum, and putting the free end of it under water, and then finding that no bubble of air escaped during the anæsthetic subsidence of the swelling. I believe that the phenomenon most probably depends on some affection of the diaphragm, which is thrown into a state of contraction, and pushes the bowels downwards into the abdominal cavity. I am the more convinced that this is the true explanation, from the fact that you can sometimes make the abdominal swelling disappear for a second or two, by getting the patient to take a deep inspiration, and then suddenly breathe out again. But, whatever be the explanation, the value of anæsthesia as an adjuvant in aiding and establishing a correct diagnosis of such cases cannot be overrated."

Six Lectures—xxiii, xxiv, xxv, xxvi, xxvii, and xxviii—are devoted to ovarian dropsy. The Professor enters fully into the subject, and gives an excellent description of the various forms of the disease and the means employed in their treatment.

The subject of Lectures xxix and xxx is ovariotomy. Dr. Simpson relates the history of the operation, and after stating the objections which have been urged against it, he classes it among the legitimate surgical operations; restricting it, however, to certain cases:

"I am no advocate for the performance of ovariotomy in many cases of dropsical degeneration of the ovary, and I think the number of cases in which it ought to be had recourse to is, as yet at least, very limited," etc.

He says further:

"On this topic I must cordially indorse the opinion of Professor Gross, of Philadelphia, the author of the latest and most complete work on Systematic Surgery in the English language. His words are these: 'My opinion has always been, that extirpation of the ovary is, under certain circumstances, not only justifiable, but imperatively necessary; and I must confess I have no sympathy with those who condemn this operation, and yet, almost in the same breath, remove an ulcerated cancerous breast, or a jaw-bone affected with encephaloid, in the hope, as is alleged, of enabling the poor patient to eke out a few short months of a miserable existence. Consistency is a virtue in surgery as it is in everything else."

After giving his attention to the cases requiring the operation and the mode of performing it, our author closes the subject with a few remarks on the most frequent causes of death in connection with the operation.

In Lecture xxxv—Cranioclasm—(from two Greek words signifying *the skull* and *to break to pieces*) and the different modes of delivery in obstructed labor are considered. The remarks of the Professor on the use of the long forceps are well-timed and a true appreciation of them, considering certain prejudices, is much to be desired. We especially call the attention of country practitioners (who possess often only one pair of forceps) to this subject:

THE FORCEPS.

"From the earliest times in which midwivery was practiced, accoucheurs must often have felt the desirability of being able to seize the head of the child between the hands in order to hasten its progress in cases of difficult and tedious parturition. But the human hands are too thick and large to be thus used as the means of seizing and extracting the fœtal head when it is arrested in the maternal passages. In order to get over this difficulty, we use the forceps—which are in reality nothing else than a pair of iron hands—thinner and slimmer than our own, and thus capable of being pushed past the fœtal head, so as to embrace and catch it. This instrument, first made and used by the Chamberlens in this country, and afterwards modified and improved by various obstetricians, is in constant use, and enables us to effect a speedy delivery with safety to both the child and mother, in a multitude of cases where the unaided efforts of Nature might prove more dangerous, or might fail entirely to complete the process of parturition. In British midwifery some practitioners have ventured to suggest that while it is quite proper to extract the fœtal head, when it is low down in the pelvis, with the forceps, it is improper to extract with them the fœtal head when it is arrested high up in the pelvis. In other words, these practitioners employ, and never hesitate to employ the so-called short forceps, but they do not employ the long forceps. Certainly this doctrine is utterly untenable. No foreign accoucheur indulges in similar prejudices. Indeed, abroad, they use alone, as we shall see in another part of the course, a long pair of forceps. And I believe that it would indeed be best for you and for all of us only to use one pair of forceps, viz: a long pair, for seizing the head both when it is situated either high or low in the pelvis. A single pair of forceps would save the bulk of the obstetric armamentarium; and when accustomed to use one pair for all cases, you will betimes assuredly come to use that pair more easily for yourself, and more safely for your patient, than if you employ one kind of forceps for one description of cases, and a second pair for another description of cases. The simplification of our instruments always adds both to their safety and and their success in practice."

Podalic version, craniotomy, cephalotripsy, the Cæsarian and Sigaultian operations are considered in relation to obstructed labor. Dr. Simpson very justly prefers to all these forms of operation, the induction of premature labor, when the child is still small enough in bulk and its head compressible enough in construction to pass safely through a contracted pelvis.

There are certain cases and conditions in which the child cannot be easily extracted either by the forceps or by turning, which are well described by our author in the pages relating to "the conditions justifying the operative dimunition of the fœtal head." Under the term Cranioclasm, Dr. Simpson gives a method of his own, for which he claims a decided superiority over cephalotripsy and craniotomy. We refer our readers to the lecture for the description of the instrument used, and the mode of operating with it.

Dropsy and other diseases of the Fallopian tubes, are described in lecture xxxii. "The operation to which I have had recourse in those cases where I have been able to satisfy myself as to the existence of Fallopian tube dropsy, consists simply in puncturing the cyst with an exploring needle, introduced through the roof of the vagina. Although this plan of operation has been proposed by Meissner, and discussed and condemned by Kiwisch, no one, as far as I know, has ever attempted to put it in practice. Yet it is a very easy operation, and one which is not attended with any suffering or any great degree of danger." After describing the operation the Professor states "that when the cyst formed by the dilated Fallopian tube has thus been once evacuated and contracted it shows no tendency whatever to refill and reassume the dropsical condition." In the eight cases operated upon by Dr. Simpson a perfect and permanent cure was obtained.

The lectures xxxiii and xxxiv are on the interesting subject of puerperal mania. After discussing the dependance of puerperal mania; 1, upon hereditary predisposition to insanity; 2, upon anæmia and exhaustion; 3, upon the peculiar state of the sexual system that exists after delivery, the author shows, 4, the probable production of the disease by blood-poisoning, or toxæmia. The connection of albuminuria with puerperal insanity is ably discussed to show the toxæmic origin of the disease, and the author submits the following propositions as the result of his present knowledge and experience on the subject:

"*a.* That albuminuria precedes and attends the first access of puerperal insanity in a large proportion of cases; but perhaps not so frequently and so constantly as it precedes and attends attacks of puerperal convulsions, etc.

"*b.* That the coagulability of the urine in puerperal insanity generally disappears within a short time after the attack commences, and hence disappears more speedily than happens in puerperal convulsions, etc.

"*c.* That when the puerperal insanity recurs in the form of successive attacks or explosions, each attack may be found connected with a new attack or advent of albuminuria," etc.

After some further consideration of the subject, and detailing the proper treatment, the distinguished gentleman closes his observations with some remarks on puerperal hypochondriasis, and takes occasion to report a case in which a dose of fifty drops of tincture of actea or cimicifuga racemosa given three times a day was attended with the happiest effects when other means had failed. But Dr. Simpson remarks: "Will it be of use in many such instances? I know not. But *nous verrons.*"

In lecture xxxv, on sub-involution of the uterus after delivery, this peculiar form of uterine enlargement, which the author thinks is not at all uncommon, though he is not aware that any of the older writers have pointed it out particularly, is described. This affection is a hypertrophy of the uterus, which is pathological in its permanency, but which results from a hypertrophy purely physiological in its origin, viz: the retrograde metamorphosis of the uterus has not taken place during the puerperal month, or rather, has taken place only to such an imperfect degree that the uterus is of the size we actually see it have at the end of the first week or so after delivery. Rising too soon after confinement, repeated miscarriages and metritis are considered as some of the causes which occasionally lead to the production of this hypertrophy from arrested absorption or involution of the uterus. After giving the semeiology of the affection, the treatment, being of great importance, is particularly dwelt upon.

An opposite morbid condition of the uterus is described by Dr. Simpson, in lecture xxxvi, as "super-involution of the uterus."

Our author closes his valuable lectures with a remarkable discourse on Amenorrhœa, in which he describes the various pathological and physiological conditions with which it is usually associated.

In the treatment of certain forms of amenorrhœa Dr. Simpson uses a galvanic intra-uterine pessary for a description of which we would refer the reader to the work, p. 507. The lecturer observes:

"I never saw the use of this instrument for the cure of amenorrhœa attended with any untoward result, and I and my assistants have employed it in a very great number of cases. Often we see its introduction immediately followed by the most marked results, especially with regard to the cure of the headaches and other secondary symptoms; and if worn for a sufficient length of time, it does not often fail in exciting the uterus to the performance of its functions, or in recalling them when they have become suspended. I have seen menstruation speedily recalled. by it after almost shop-loads of physic had been used in vain for the purpose. It produces its effect, I believe simply by the gentle and continued stimulation of the whole uterine system. Probably other kinds of foreign body lodged there would produce much the same effect; and I have treated cases of amenorrhœa with success by the introduction of a stem pessary made entirely of copper or of German silver, such as is used for dilating the cervical canal in cases of dysmenorrhœa. But in cases of simple amenorrhœa, I prefer to have the instrument made of two different metals, as suggested by Dr. Weir, because the slow galvanic action resulting from the chemical changes effected in the zinc increases the chances of a speedy and successful issue."

One word more before we part with our author: The works of Dr. Simpson are indispensable to the physician who has a legitimate ambition to keep pace with the advance of our science. The celebrated Professor had already done much towards its improvement, and, from the new evidences we have before us, we find that far from being satisfied with the laurels which have already been awarded to him, he is determined ,to present new claims to the gratitude of the profession. V. J. F.

* * *

M. Nelaton.—The credit which this eminent French surgeon has gained for his country and for himself, by his correct diagnosis and successful treatment of Garibaldi's wound, has prompted the workmen of Paris to offer him the nomination of a member of the Chamber of Deputies. The following reply, which he made, shows such good common sense, that high as we esteemed his surgical ability we find our confidence in it further increased; for one who shows such good judgment in the affairs of life must have the same in the province of his profession. We trust the lesson it affords, moreover. may not be entirely lost in this country, however novel such a course might be.

"Gentlemen—I feel much gratified at the step you have taken, but I must confess that it astonishes me as much as it does me honor. I do not well see how my knowledge of surgery can have made you imagine that I am qualified for the mission with which you wish to invest me, or how I should have suddenly become a political economist, a financier, and a legislator, because I have discovered the presence of a ball in the foot of a wounded man. If the object in view were to appoint me surgeon to the Chamber, that would be a different affair; but the business of a Deputy is what I have never learnt in Hippocrates, and for which, to speak frankly, I have no taste. I am even convinced that the affairs of the country would not go on better, and that my patients, being neglected, would fare the worse. I must, therefore, while thanking you for what you have done, declare that you propose to me an honor which it is impossible for me to accept."—*Med. News.*

BIBLIOGRAPHICAL NOTICES.

TENTH ANNUAL REPORT OF THE TRUSTEES OF THE STATE INSANE ASYLUM (STOCKTON) FOR THE YEAR 1862.

DR. W. P. Tilden, the resident Physician of the Institution, has just published his Annual Report, from which we extract the following interesting facts.

"The number of patients under treatment, during the past year, was 717. Of these, 571 were males, and 146 females. 141 were discharged, 65 died, and 12 eloped. 301 were admitted during the year.

"The results of treatment in this asylum are far from being as favorable as could be desired. Dr. Tilden remarks in relation to this matter:

"The difference in results in our Institution as compared with others, is seen in the fact that they cure from sixty to eighty per cent. of all their recent cases, whereas, of similar cases, we are unable to show more than forty-five and thirteen-one hundredths per cent. of cures. There is, however, still a wide difference between those Institutions and ours, which should be taken into the account in instituting comparisons.

"They *can* be filled, and when they are full, further applications for admissions are rejected; when vacancies occur, they give the preference to applications for the admission of recent and curable cases, and they are generally provided with all of the best means for the treatment of their patients.

"On the other hand, it seems that the Asylum of California *cannot* be filled, and, notwithstanding it has contained for the last four years a greater number of patients than could be comfortably provided for, still, like a Montgomery street omnibus, it is never so full but that room *must* be made for another; and now, although we have two hundred and forty-nine patients more than its utmost capacity can properly accommodate, yet they come and must be crowded in. We have no right to reject any, whatever the condition of things may be. This power rests, under the law, upon the County Judges, with whom it is left alone to determine who shall and who shall not receive the benefits of the charity, and if I may be permitted to express an opinion, derogatory to the judgment of many of them, I will say that, judging from the character of a large number of cases sent to us, the Committing Courts must have lost sight of the nature and purposes of the Institution, and concluded to add to its uses the purposes of a State Poor House, and a place of general relief to the County Hospitals."

"This, I doubt not, seems right and proper to them; but, in my opinion, there is no more effectual way by which the people of the State can be deprived of the benefits of an Asylum for the *Insane*. There is such a thing as crowding a place of the kind to such an extent, even with legitimate cases, as to prevent the accomplishment of the objects of such an Institution, namely, the *cure* of insanity; nay, more, it is beyond all controversy a fact, that crowding indiscriminately together, Poor House, General Hospital, and Insane Asylum cases, not only tends to prevent cures, but positively to fix, irrevocably, insanity upon many who might otherwise be restored. Painful as the thought be, and disgraceful as the fact is, it is, in my most solemn judgment, true, that there are now in our Asylum over two hundred persons who, but for these reasons, and for the want of proper means applied at the right time, might have been cured, but who are now beyond all hope, and are doomed the remainder of their lives to 'living graves.'"

We thus learn from the report that the Asylum is over-crowded with patients, that while its accommodations are not more than sufficient for two hundred and fifty, there are at this time four hundred and ninety-nine within its walls.

The demand of the Resident Physician for necessary room and proper means of employment, should be granted without delay. A State as liberal as California should not be behind others in providing all that is necessary for this unhappy class of fellow-beings.

Among the different amendments to the organic law suggested by Dr. Tilden is one to exclude the State-Prison insane convicts from the Asylum. Justice as well as humanity demands that this evil be promptly remedied. There should be a ward appropriated to such in the Hospital of the State Prison. On this subject the Resident Physician says:

"There is another class of patients sent to us who should never be admitted into a general hospital for the insane, as the good they receive will hardly justify the evil occasioned by their presence. I mean the convicts from the State Prison. The practice of associating criminals with non-criminal citizens, is a disgrace to the age in which we live, and ought to be stopped, if for no other reason, for the credit of the State. Those who suppose that the innocent occupants of an Insane Asylum are indifferent to such associations, or that the practice can be continued without interfering materially with the successful management of the Institution, have very erroneous views of the condition of society in such a place. It has been truthfully said by Dr. Connolly that, 'in a large majority of cases of insanity, the powers of observation are active, and the understanding has a considerable range of exercise, while the affections exist as warmly, and the sensibility is as acute as in a state of perfect mental health.' The feeling of 'insult or injury' (to use the expression of some of the patients) occasioned by compulsory associations of the kind are, therefore, as keenly felt, by many of them, as it is possible for like associations to occasion in society at large.

"Let every legislator and every citizen bring the question home, how he would like to be compelled to walk the same wards, exercise in the same yards, sleep in the same rooms, and eat at the same tables, with thieves, robbers, and murderers, and let the response to their own hearts and consciences be the standard by which they will measure justice and mercy to the innocent sufferers in the Asylum, whose welfare and happiness depend so much upon what may be done, or left undone, by the legislator and the citizen."

ANNUAL REPORT OF THE STATE PRISON DIRECTORS FOR THE YEAR 1862.

THE report of Dr. J. D. B. Stillman, visiting physician, shows that there were, during the year, 15 deaths in this Institution, the pathological causes of which are thus stated: Tuberculous diseases, 5; abscess of liver, 1; cirrhosis of liver, 1; wounds, 8. The average number of prisoners is reported to have been 585. The comparative large number of deaths from wounds resulted from the conflict which followed an attempt on the part of the prisoners to escape. Dr. S. gives the following account of the affair:

"The *emeute* in July devolved an unusual amount of labor upon me for a few weeks. A special messenger reached me at San Francisco on the same afternoon of the affair. I immediately telegraphed to the Governor at Sacramento, and caused the Chief of Police to be informed of the facts, and started for the Prison in a small boat, accompanied by Dr. S. M. Mouser, whom I called to my assistance. The wounded numbered 32, all by gun shots; of these, two (Sterrit, shot through the stomach, and Apaulacio, shot through the brain) died the day after. Brewer was shot through the thigh with a Minie ball, which fractured the head of the right femur on its passage out, and proved fatal on the ninth week. Bieata, a California Indian, received a shot nearly in the same region, the ball traversing the perineum in its passage from side to side. He recovered from his wounds, but died in November of tubercular disease consequent upon his injuries. Rodrigues was shot through the lungs with a pistol ball, but is entirely recovered. Blonnel, wounded through the shoulder, had also a buckshot enter the mastoid process of the temporal bone and pass out at the mouth, carrying away portions of the two upper middle incisors. Farrow was shot through the neck from behind, the ball passing out between the trachea and the sterno-mastoid muscle. Both these cases recovered, contrary to my expectations. Twelve were wounded in the lower extremities. One of these, Keller, had his thigh fractured at its middle part by a ball passing entirely through. The chances for saving the man's life were small in any attempt to save his limb but after mature deliberation upon all the circumstances, he concluded to share the fate of his leg. I respeeted his determination, and saved his leg, though much shortened.

"Eight were wounded in the upper extremity; of these, two were shot through the elbow-joint, one so badly shattered that it was deemed best to amputate the arm; the other we reserved, intending, should we fail to prevent suppurative inflammation in the joint, to resort to resection, but through the faithful care of Mr. Russel, the Hospital Steward, and the good hygienic influences of the Prison, he has a good joint, and has resumed his trade as a blacksmith. The others were wounded in various parts of the trunk, but all have recovered. The only fatal cases were those already mentioned.* For these favorable results, I am indebted much to the valuable assistance of Dr. Mouser, and the fidelity of the Steward, but more than all to the excellent regimen and the healthful location of the Prison. Situated, as it is, at the extremity of a high peninsula, which forms the dividing ridge between the Corte Madeira and San Rafael creeks, almost surrounded by tide water and salt marshes, and swept by the breezes from the spruce-covered sides of Tamel Pais and the Pacific through all the dry or summer season of the year, one will not be surprised to learn that there has not been a single case of epidemic, contagious, or endemic disease, during the year. In comparing the sanitary reports with those of Eastern prisons, it must not be forgotten that the necessities of the climate here do not interfere with free ventilation. At no time of the year do the prisoners have air artificially heated in their dormitories, or is the free air shut out. It could scarcely be expected that men collected from all parts of the State, and many of them for a long time sufferers from malarial diseases before committed to San Quentin, should be exempt altogether from intermittent fevers. They comprise a considerable number of our sick list—but they have been slight, and in no case lasting beyond the second and third day. Of typhus, typhoid, and remittent fevers, there has been none—no pleurisy, pneumonia, and but one case of bronchitis.

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* Those killed outright, and not brought into the Hospital, I have not recorded in the Hospital books. The number of these, as taken from the Turnkey, is four—making a total of nine who were killed and died of their wounds, directly and indirectly, as far as is known.

"It will be observed that disorders of the digestive and assimilative functions are by far the most numerous, and, in fact, they comprise, including those remotely dependent upon these, nearly all the diseases to which the prisoners have been subject, and they seem to be inseparable from a life of confinement, with full diet. Of course, I place tuberculous diseases in this class. Phthisis here, as in all prisons, carries off the greatest number of those who die from natural causes. The Indian race suffers peculiarly from this cause, as they appear to do wherever they are subject to confinement."

CONSUMPTION IN NEW ENGLAND; or Locality one of its chief Causes. An Address delivered before the Massachusetts Medical Society, by Henry J. Bowditch, M. D. Boston: Ticknor & Fields. 1862. pp. 100.

IN this monagraph the author maintains: "That there are some spots which have very little of this scourge of the human race, while in other places, and even in particular houses, it prevails to a frightful degree; and, moreover, that these spots may be, perhaps, within a very short distance from each other."

Again: "Facts indicate that dryness of the soil in the surrounding of any place, is the prominent characteristic of the former, or of places comparatively free from consumption; while dampness of the soil characterises the latter, or—as they may be called—consumption-breeding districts."

The author earnestly calls upon the profession to investigate the statements made by him in relation to this subject, to which he has devoted his attention for several years. The two following propositions contain the essential points of the address: 1st. A residence on or near a damp soil, whether that dampness be inherent in the soil itself, or caused by percolation from adjacent ponds, rivers, meadows, marshes, or springy soils, is one of the primal causes of consumption in Massachusetts, probably in New England, and possibly in other portions of the globe. 2d. Consumption can be checked in its career, and possibly, nay probably, prevented in some instances, by attention to this law.

CONTRIBUTIONS TO PRACTICAL MEDICINE. By James Begbie, M. D., F. R. S. E. Fellow, and late President, of the Royal College of Physicians, Physician in Ordinary to the Queen in Scotland, etc. etc. Edinburgh: Adam & Charles Black. 1862. pp. 318. [For sale by Bancroft, Montgomery street, San Francisco.]

DISEASES OF THE CHEST, including the Heart and Great Vessels: their Pathology, Physical Diagnosis, Symptoms and Treatment. By Henry Wm. Fuller, M. D, Cantab., Fellow of the Royal College of Physicians, London; Physician to the St. George's Hospital, etc. etc. London: John Churchill. 1862. pp. 688. [For sale by Bancroft & Co., Montgomery street, San Francisco.]

WE acknowledge the receipt of the above important volumes from Messrs. Bancroft & Co., Montgomery street, San Francisco. We shall notice them more particularly in our next issue. Messrs. Bancroft & Co. have made the necessary arrangements for a constant supply of valuable medical works from Great Britain.

BULLETIN OF THE NEW YORK ACADEMY OF MEDICINE. Vol. II., Nos.—1-4. 1863.

THE present numbers contain valuable reports and remarks by Drs. Clark, Flint, Barker, Noyes, Smith, Elliot, Van Buren, etc., on the following subjects: Etiology and Pathology of Bright's Disease; Effects of Albuminuria upon Vision; Relations of Albuminuria to Pregnancy; Delphinium and Vomiting during Pregnancy.

ON MEDICAL PROVISION FOR RAILROADS. By Edmund S. F. Arnold, M. D. New York: Bailliere Brothers. 1862.

THE humanitary measure set forth in this paper has already secured the approval of the most prominent surgeons in New York. The plan devised seems to be well matured, and we hope that this or some other similar measure, by which a greater degree of protection to life may be obtained, will soon be put into practical operation. According to the *American Medical Times* of January 25th, 1862, during 1861, there were 63 railroad accidents in the United States, resulting in 101 killed and 459 wounded; in 1860, there were 74 railroad accidents, resulting in 54 persons killed and 313 wounded. The number of railroad accidents, for the last nine years, was 1,040, giving 1,267 killed, and 4,385 wounded.

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HEALTH OF SAN FRANCISCO.—The total number of interments during the month of February was 151. There were 61 burials in the Lone Mountain, of which 18 were under 3 years and 8 still-born; 52 in the Roman Catholic, of which 17 were under 3 years, and 7 still-born; and 8 in the Jewish cemeteries.

The principal causes of death are recorded thus: Consumption, 20; typhoid fever, 4; scarlet fever, 2; fever, 2; dysentery, 4; brain diseases, 4; heart diseases, 3; measles, 1; diphtheria, 1; whooping cough, 1; dropsy, 1; inflammation of the lungs, 1.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

A Selection of Remarkable Cases Occurring in a Practice of Eighteen Years.

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POLYPUS UTERI.

On the 13th of August, 1855, I was called to see Mrs. D——, a young English woman, twenty years of age, who had been married for four months. Her marriage took place during menstruation, and, at that time, her illness commenced. Hitherto she had always, in a remarkable degree, enjoyed good health, and rarely, in her life, taken medicine of any kind.

I found that she was feverish and suffering from nausea, and a feeling of oppression at the stomach, and that the menses, present two out of the four weeks, were attended with a profuse, exhaustive flow and great pain, similar to that from dysmenorrhœa.

Our first impression was that the uterine discharge was due to the impeded circulation in the vena portæ, which occasioned a congestive condition of the other abdominal viscera, and that a speedy relief from this complication would follow a proper attention to and cure of the hepatic derangement. On this assumption, she was treated with mercurials until a slight constitutional effect was evinced by the tenderness of her gums; when, gradually, the yellowness of the skin disappeared, the hepatic secretion became natural, and the digestive organs regained their natural condition. Nevertheless, a hidden cause of irritation remained undiscovered, as was manifest from the profound implication of the nerve-centres and the rapidity of the pulse; which, throughout her sickness, remained constantly above 100 per minute, and from augmented sufferings, many times rose to 130. The uterine symptoms were not relieved, but rather increased and intensified. These were a profuse hemorrhage, attended with pain of a grinding cutting character that was agonizing, very persistent, and with difficulty subdued, unless by large doses of anodynes; and an elastic teneness and acute tenderness in the region of the left ovary, extending somewhat above the pubic bones, but not to other portions of the abdomen. On tactile examination by the vagina and rectum nothing could be discovered that afforded a single ray of light in the darkness surrounding the disease. The peculiarity of the pain experienced by the patient indicated that the womb contained a formation of some kind, which was constantly inciting it to contract for its expulsion; though the fibrinous coagula that appeared to be constantly forming, yet only occasionally expelled, whenever the suffering was most severe, seemed sufficiently to account for it, without assuming the presence of a polypus, which I was unable to detect.

In the treatment hitherto followed we had, unwittingly, confounded cause and effect; and directed our efforts to the removal of a result rather than the source of the disease. The jaundice, as at this stage seemed clear, must have been symptomatic of irritation in the generative organs; yet, after narrowing down the range of our investigations to so small a circle, the great difficulty lay in the fact, that it was impossible to fix, with certainty, upon the exact structure implicated, or the morbid changes that had and were now taking place. In our doubts, from the difficulty of otherwise solving the significance of the symptoms, and the apparent lack of other causation, we now adopted the view, that there existed an inflammation of the left ovary and treated the case for two and a half weeks with diaphoretics, anodynes, fomentations, leeches and blisters, with no better result than at first.

Dr. E. J. Tilt (Diseases of Menstruation and Ovarian Inflammation) maintains from clinical experience, that the ovaries bestow, exclusively, on women her special organization; that all disorders peculiar to her, originate, sympathetically, from this source; that the uterus is merely a receptacle provided for the sojourn of the fœtus for a limited period; that the uterus is wanting, entirely, in those vital relations and extensive sympathies universally attributed to it; and that its diseases are simply results of ovaritis, only curable by attacking the primary disease.

These doctrines of Dr. Tilt, I would remark, en passant, have not been confirmed by my experience in later years, although it has been somewhat extended; and I should say that, in my opinion at least, uterine disease rarely owes its origin to this source.

The patient had now been under my charge for more than six weeks, during which time the uterine symptoms—a more abundant flow, severe pelvic pains, greater tenderness, hardness and swelling above the upper rim of the pelvis—had gradually become more urgent. The catamenia invariably appeared on the day for their recurrence, at first natural, fluid, moderate in quantity, and attended with little or no pain for two or three days; then gradually they became hemorrhagic, very profuse, clotted and accompanied with pains resembling, exactly, the throes of labor. The discharge, remaining thus at its height for several days, would slowly subside and eventually cease; when an interval of three or four days would follow, in which there would be almost a complete immunity from suffering; and slight evidences of a mixed disorder, excepting the inroads made on the constitution, observable on such occasions most palpably. The patient would express herself as feeling almost well, and frequently would be up and attempt to do some light work; but yet, her pulse, as before mentioned, was uniformly hard, corded and above 100 per minute.

As, on repeated examinations by the touch, nothing was discoverable to aid me in solving the mystery enveloping the case, I succeeded, after much hesitation and delay on the part of the patient, in gaining her assent to the employment of the speculum. Her scruples were only overcome after enduring two periods of fearful draining, that produced great exhaustion, and placed her life in imminent peril. This means of investigation, however, afforded no additional information, and only revealed a puffy state of the neck, and a patulous condition of the mouth of the womb. No morbid growth could be seen, and by using the sound, none could be discovered in the uterine cavity. At this result I felt much disappointment, since, at this stage, the peculiarity of the symptoms indicated the presence of a polypus; and I was forced to conclude that it was too small, if it had an existence, to be perceptible. Reviewing the whole history of the case, it seemed highly probable that there was an inflammatory state of the lining membrane of the uterus; since, several times, on using the speculum, a small fibrinous clot was expelled into its cavity. Any way, without feeling over confident in this new supposition, I resolved to make another attempt for her relief, knowing that if a polypus was forming, I should be obliged to wait for its development.

Once or twice during the inter-menstrual period, I introduced into the cavity of the uterus, by means of a bit of sponge attached to a whalebone, a strong solution of lunar caustic. During the flow, cold water was used externally and by the rectum; and, whenever the pain was excessive, anodynes were given. Every effort was made by tonics, stimulants and a nutritious diet to add tone to her nervous system and the elements of nutrition to her blood; both of which had been exhausted by the continuance and severity of the hemorrhage. This course was followed with slight variation to the 18th of February, 1856, when the patient moving to New York, passed from my hands.

There was the most marked improvement in all her symptoms—in her general appearance and strength; in the discharge, which was fluid, and scarcely one quarter of its former amount; in the pain, which was more of a weakness and uneasiness than an expulsive effort, and in the relief from the flow, which, progressively shortening in its continuance, had been absent for eight to twelve days at a time. It appeared to me, then—an opinion which I am still disposed to hold—that endometritis existed from the first; and that a plan of medication to subdue the inflammation would have successfully met the hemorrhage, and prevented the formation of a polypus, which, eventually arising on this inflamed base, gradually monopolized the nervous and vascular supply of the part, and thus cured the original disease by the simple process of one supplanting another.

As, on removing to New York, the patient became worse again in two or three months, her husband, by the advice of friends, was induced to try the *other system*—so-called—of medicine. A gentleman versed in the sybilline books, and oracular in this modern mystery, so vauntingly proclaimed, as though it possessed a talismanic potency, which would attain results, as by magic, by inconceivable, material agencies, was called to administer to her necessities. He, with an infinite faith in his infinite attenuations, nothing doubting, assailed the enemy boldly by heavy and continuous discharges from his liliputian artillery. Incredible to relate, his system—that never fails, and which, with a fair start and a clear field, can conquer the great Conqueror of all flesh—now, for a reason not very apparent, receives a check,—nay, I may say, is discomfited. Nothing daunted, however, other wise men are summoned in counsel, one after another, until five, learned in the divisibility of matter, and in the interpretations of the inarticulate mutterings of the Anima or Archæus inhabiting the body, united their wisdom in a grand sum total, and simultaneously made fearful onslaughts on their common enemy with the same ill success. Having exhausted their armamentarium medicum, or rather having exhausted the patient in their pursuit of symptoms, by the new method of warfare, they resumed their old fashioned weapons, which, being somewhat rusty, did little or no execution—at least for good. At length, after a trial of eight months, they ventured an examination, which revealed to them a large body filling the vagina, to which they were sadly puzzled to give a name. In their doubts, a surgeon from the regular profession is summoned to their aid; a person of repute in the art, though, I am sorry to say, with a character that must ever be tarnished by such company. In a period of four months eight examinations were had, whilst the patient was under the influence of chloroform; when, finally, the conclusion was arrived at that the tumor in the vagina was an inverted uterus, which it was proposed to remove by ligation, an operation, in their opinion, feasible and attended with little hazard.

Mrs. D. came to visit a friend in this city for a few days, with the intention of learning my views in regard to the disease, and the propriety of its removal by an operation. On the 2d September, 1857, I received a message to call on her immediately, as she was in a dying condition from the loss of blood. I found her faint, speechless, and blanched by a sudden and profuse hemorrhage, amounting to at least sixteen ounces, which took place in a short time, with pains like those of labor. For fear of re-exciting the flow, that had ceased on my arrival, a slight examination was made—only so far as to reveal a large body filling the pelvis to its utmost capacity, pressing down on the perinæum, and sensitive, apparently to the touch. A few days use of tonics and stimulants having revived her, a more thorough exploration was instituted.

Mrs. D. stated, that after her removal to New York she continued, for a time, much as before; then, by degrees, lapsed into a state of flooding, profuse and nearly constant, but eventually of a paroxysmal character; a sudden gush, generally copious, with uterine contractions, when it would cease for longer or shorter intervals. The change in the mode of the discharge was satisfactorily accounted for by the tampon-like body distending the vagina.

At all times there was a persistent expulsive tenesmus, and cutting, lancinating pains through the sacrum and pelvis, that kept up a constant state of lingering agony—in fact, the pains of a quasi labor were rarely absent, and reached their acme when the hemorrhage was most copious.

As before stated, there was found in the vagina a large body, pyriform in shape, with its larger extremity downward, filling the pelvis completely, and crowding itself upward to the height of the superior strait, downward on the floor of the pelvis, and backward on the rectum. Without the aid of injections, fæces or flatus even could not be passed; and generally, though these were used, great difficulty was experienced in relieving the bowels.

By a considerable degree of force the finger would pass each side of the tumor; except posteriorly, where it pressed down on the perinæum much like a child's head in parturition. In front, by the strongest pressure upward, it was barely possible to touch, but not very accurately or definitively, a substance firmer than the mucous membrane, with which, however, it seemed a part; but to either side it could not be detected. By drawing back the perinæum a good view of the lower surface of the tumor was obtained. It had a red, velvety look, like the mucous membranes in a state of congestion, was coated with a copious secretion of mucus, and traversed by large blue and red vessels; in fact, its shape and appearance were such as would be presented by an inverted uterus. Besides, as she asserted the tumor was sensitive—the gentlest touch being appreciated, and rough handling causing pain—though of this fact I could not satisfactorily assure myself; since the patient's sacral nerves, from long-continued irritation, were super-excitable, as we observe in neuralgia; and any pressure on the tumor would, from its accurately filling the pelvis, be felt in all of the contiguous structures.

On the 24th February, fortified by the aid and counsel of two professional friends of large experience, I went prepared to make a thorough exploration, and, if a polypus was diagnosticated, to apply a ligature to its pedicle. The tenesmus, that was always excited by an examination, being removed by the use of chloroform, it was possible to feel more accurately the firm rim above-mentioned and trace it, though imperfectly, to either side. The sound, introduced along the finger, passed three quarters of an inch, anteriorly, beyond this firm border, and when pressed, laterally, entered from two and a half to three inches. Hence I concluded that we had to deal with a polypus whose insertion was on the anterior walls of the uterus; since, in case of inversion, even though partial, it would be impossible to pass an instrument so far within the os uteri.

Unfortunately this diagnosis, in which I was most decided and positive, was not concurred in by the consulting surgeons—one being equally decided and positive that there was a complete, or, more probably, a partial inversion, and the other uncertain, though, in the main, inclined to my view, more from the difficulty of understanding how a virgin uterus could be inverted, than from any information afforded by the examination.

Having spent nearly three hours in exploring and comparing opinions, I was advised to apply the ligature, in case no doubt or misgiving remained in my mind, and I was prepared to assume the responsibility. This I felt emboldened to do, both by my confidence in the existence of a polypus, and by a previous request of the patient, who entreated me to venture upon any procedure, however hazardous, that promised relief, as life to her, with such sufferings, was a burden. Moreover, it was apparent even to the unprofessional observer, that her constitution could not much longer bear up under these profuse hemorrhages, and that death was approaching with a steady, even step, unless a risk was assumed by some one for her preservation.

I employed Profs. Campbell and Van Buren's modification of Gooch's double canula. This instrument—which may be found figured in Gardner's translation of Scanzoni—from the ligature being tightened by a screw, immediately strangulates the polypus, and thus expedites very materially the ulcerative process, by which means the irritative fever is lessened, and the danger of purulent absorption obviated. The ligature—a double strand of saddler's silk—was applied around the pedicle with less difficulty than was anticipated, and in less than ten minutes the operation was completed.

The patient experienced little inconvenience for the first two days; but on the third and fourth, she sank very low with an ataxic fever, that was attended with a muttering delirium, a most alarming prostration and a discharge, in large quantities, of fœtid pus—symptoms that boded a serious result had they not been quickly relieved by the polypus becoming, at this juncture, detached. Its remains consisted of fasciculi of muscular fibres resembling the columnæ carneæ of the heart, and though much the larger portion had sloughed, was of a size one-half larger than a goose egg; whence, we concluded that, originally, its bulk must have equaled that of the head of an eight months' fœtus.

I am happy to state that, though more than seven years have since elapsed, our patient continues to enjoy uninterrupted health, and is not annoyed with any abnormal uterine symptoms, but yet, much to her sorrow, her marriage remains unblessed.

POLYPUS OF THE CANAL OF THE CERVIX UTERI.

During the spring of the present year a case of polypus uteri came under my care, that was interesting from the peculiarities presented on examination, either by the finger or speculum. These, though not very singular, and, in my opinion, frequently observed under the same conditions, might mislead others into a false diagnosis, as was the case, in this instance, with an obstetrical teacher, who, the year previous, had the lady under charge, and declined to operate, as alleged, by reason of the number of polypi embedded in the neck of the womb. By the touch the canal of the neck was felt to flare open from the inner os, which was closed, and to be studded with prominences separated by deep sulci. By the speculum a small mucous polypus, pedunculated and the size of a pea, was seen attached just within the outer os, and lining the inner neck were irregular projections that resembled fibrous polypi growing, without pedicles, from the uterine tissues. This appearance, I had no doubt, resulted from the increased nutrition of the rugosities (the markings between which form what is called the arbor vitæ), which, from the congested state of the uterus, had become greatly enlarged; and I expected that when the polypus, the cause of the preternatural flow of blood, was removed, the surrounding parts would return to their normal condition. The operation was done by torsion. The succeeding menstruation was excessive, but this function has since been natural: the cavity of the uterine neck has returned to its normal state, as was verified by observation, and the woman's health is thoroughly re-established.

This lady, for five years, had suffered from a profuse menorrhagia, and was rarely free more than eight days in a month from a bloody discharge. However long her periods continued, and however excessive they might be, they invariably returned at the appointed time. By this persistent drainage she had become greatly debilitated and very anæmic.—*Med. and Surgical Reporter.*

Rules for Ovariotomy.

BY MR. T. SPENCER WELLS,
Surgeon to the Samaritan Hospital, etc.

THE observance of the following rules will, Mr. Wells believes, materially assist in securing a favorable result:

1. The operation should be performed in an airy room, the temperature of which should not be below 70° Fahr., but need not be raised to a degree uncomfortable to either surgeon or patient.
2. The patient should be placed in the horizontal position, on a firm, narrow couch, opposite a good light, and be well covered by flannel everywhere except the abdomen and face.
3. She should be spared the fear and shock of the operation, by chloroform.
4. The incision should be made in the median line. It should not pass nearer than two inches to the symphisis pubis, and may commence just below the umbilicus. It may be extended upward to the left of the umbilicus, and along the median line, as far as may be necessary to expose the tumor and separate adhesions. A large empty cyst may be removed through an incision three inches long; and an incision of five inches is amply sufficient for the removal of very large tumors, provided each cyst be withdrawn as it is emptied, or groups of small cysts be withdrawn unemptied one after another.
5. Any bleeding vessel in the abdominal wall should be secured before the peritoneum is divided.
6. When the ascitic fluid surrounds an ovarian tumor, some of it may be allowed to escape; but the tumor should be pressed forward by an assistant, to retain the fluid till the last, as a protection to the intestines. Any adhesions found, whether there be ascitic fluid or not, between the cyst and abdominal wall, should be carefully separated by the hand while the cyst is full, great care being taken not to rupture any cyst. Adhesions to omentum or intestines are better left until the cyst is empty, and the adherent viscera can be seen.
7. As soon as the tumor is freed from parietal adhesions, it should be tapped by a large siphon trochar. As the fluid escapes and the cyst becomes flaccid, it is either to be fixed by a hook and withdrawn, or drawn over the canula and tied over it, to prevent any ovarian fluid from entering the peritoneal cavity.

8. As the cyst escapes, flannels wrung out of water at 96 deg. are to be carefully wrapped round it to protect the peritoneal cavity. As secondary cysts are drawn to the opening, they are to be emptied, either by the trochar being passed on through the canula which is still tied within the first empty cyst; or by opening this cyst, passing one hand within it, and breaking down secondary cysts, while the other hand withdraws the tumor as it is emptied.

9. When there is a solid or semi-solid mass so large that it will not pass easily through the opening, this must be carefully enlarged to the necessary extent.

10. If, as the tumor is withdrawn, omentum, mesentery, or intestine, are seen to be adherent to it, the adhesions must be carefully broken down with the fingers, or divided with the scalpel or scissors. When intestine is so firmly adherent that it cannot be safely separated, the adhering portion of cyst should be cut away, leaving it attached to the intestine, but removing the inner secreting lining membrane of the cyst.

11. Any portion of omentum separated should be carefully held to see that no bleeding vessel is returned. Any portion which appears to be much altered from the natural condition, or torn in the process of separation, should be cut away; and any bleeding vessel should be stopped by torsion, or by ligature. If by ligature, the ends should be brought out through part of the wound. The ligature should not include any portion of omentum—simply the bleeding vessels.

12. When the whole of the tumor has been withdrawn, it will be found to be attached to one side of the uterus by a pedicle which varies very much in length and breadth, and always contains large blood-vessels. This pedicle is first compressed by the chain of an eeraseur, or only by a clamp, close to the junction of the pedicle and cyst. The tumor may then be cut away, great care being taken so to arrange the flannels that no ovarian fluid can enter the peritoneal cavity.

13. The lips of the wound are then held apart, and the opposite ovary is to be examined. If diseased, it must be withdrawn, its pedicle secured, and the diseased organ cut away. If healthy, it is left undisturbed. A careful examination is then made, to see if there be any bleeding vessel at the spots where adhesions have been separated. Any such vessel may be secured by torsion, or by the pressure of a needle passed across it. Any blood or ovarian fluid in the abdomen or pelvis, must be carefully removed by soft sponges wrung out of water at 96 deg.

14. The upper part of the wound is now to be closed by passing gilded harelip pins through the whole thickness of the abdominal wall, at intervals of an inch. Each pin should perforate the skin about an inch, and the peritoneum abovt half an inch, from the incision on either side; so that when the two opposed surfaces were pressed together upon the pin, two layers of peritoneum are in contact with each other. These two layers adhere together very rapidly; prevent pus or other secretions of the wound from entering the peritoneal cavity; prevent adhesions of omentum or intestine to any part of the inner aspect of the wound not covered by peritoneum; and secure such firm union that a ventral hernia cannot occur after recovery.

15. The peduncle is next to be secured permanently. When the clamp does not drag on it too much, it may be left lying across the wound; but it will often be better to secure the pedicle permanently by ligature, and remove the clamp which had been used to secure it temporarily. Close below the clamp, the peduncle is transfixed by a needle which carries strong twine; and each ligatnre is so tied as to include a portion of peduncle of about a finger's breadth. One general ligature is then tied tightly around the whole as a security against bleeding from any vessel which may have been punctured. The smaller the portion included in each ligature, and the tighter it

is tied the more rapid is the subsequent process of separation. When the ligatures have been securely applied, the clamp is removed, and any superfluous portion of cyst is cut away; but care must be taken to leave enough beyond the ligature to prevent any danger of this slipping off.

16. When the peduncle is so long that the stump (or portion strangulated by the ligature) can be fixed outside the abdominal cavity, it is to be brought out at the lower part of the wound, and fixed there by a harelip pin, which is to be passed through it as well as through both edges of the wound. It is important that the ligatures should be on a level with the skin, and that the stump should be surrounded by dressing which separates the sloughing tissue from the raw surface. When the ligatures are fixed at the level of the peritoneum, raw surfaces surround tha sloughing stump, and a sloughing condition of the wound, or putrid infection of the whole system, may possibly result.

17. When the peduncle is so short that the stump cannot be brought to the surface without great traction upon the uterus, the common practice has been to bring the ligature through the wound, and fix the free enas securely outside. In one case, they were carried through the inguinal canal beside the round ligament, and the abdominal wound was closed. In another, they were cut off short and left, the wound also being closed. It remains for further experience to determine which of these plans is to be preferred; or if only the vessels should be tied, instead of the whole thickness of the pedicle; or if acupressure can be applied successfully; or if it would be safer to trust to the ecraseur.

18. In whatever manner the pedicle may be treated, the wound must be finally closed by a sufficient number of superficial wire-sutures, to bring the opposite edges of the skin into accurate contact; and the wound may be brushed over with collodion, as an addition protection against the fœtid sanies which very soon begins to surround the decomposing stump.

19. The patient is then dried, and placed in a warm bed; a hot linseed poultice, or a hot water cushion, is placed over the abdomen; and the whole is secured by a flannel belt, which is kept in its place by a pair of thigh straps.

20. The principles of after-treatment are, to secure extreme quiet, comfortable warmth, and perfect cleanliness to the patient; to relieve pain by warm and moist applications to the abdomen, and by opiate enemas; to give stimulants when they are called for by failing pulse or other sign of exhaustion; to relieve sickness, by ice or iced drinks; and to allow plain, simple, but nourishing food. The catheter must be used every six or eigh hours, until the patient can move without pain. The harelip pins are removed on the third day, unless tympanic distension of the stomach or intestines endanger reopening of the wound. In such circumstances, they may be left for some days longer. The superficial sutures may remain until nnion seems quite firm. When the pedicle is kept without, the dead stump and ligatures come away between the third and tenth days; but when the stump is left within the abdomen, the ligatures have remained for several weeks. The putrid sanies which surround the stump must be carefully cleansed away; and the wound and surrounding skin must be protected from it by means of greased lint or collodion. The dressing should be covered by a muslin bag containing dry charcoal, or a powder of tar and gypsum, to prevent the appetite of the patient from being affected by any bad smell.—*Ranking's Abstract*, from *Brit. Med. Journal.*

Foreign Correspondence.

BY PROF. CHAS. A. LEE.

CRETINISM.

INTERLAKEN, Switzerland, Sept. 4, 1862.

THERE are, perhaps, no physicians of the present age, who have been in the habit of perusing medical journals, who have not become more or less acquainted with the institution of Dr. Guggenbuhl on the Abenderg, for the cure of cretins and idiots. It was opened on the 23d of July, 1841, and has now been over twenty-one years established, during all which time Dr. G. has presided over and directed its operations. As it was one of the first, if not the very first institution of the kind ever established, it naturally attracted much attention, and it is but truth to say that it has not only given rise to many publications on the subject, but it has also been the germ of several establishments of the same kind, in different parts of Europe. For a long series of years the usefulness and integrity of Dr. G. were not questioned by any one; it was visited, and still continues to be, by physicians, clergymen, scientific men, of every country, and even by kings and princes, who awarded to Dr. G. great credit for his zeal, benevolence and disinterestedness. But of late, within the last four or five years, the doctor has had to encounter very serious opposition; his candor and honesty have been even questioned; he has been repeatedly charged with falsehood, selfishness, and an avaricious disposition; and recently these charges have been indorsed by medical societies in Switzerland, as in Berne, which have passed resolutions, cautioning the public against Dr. G. as guilty of intentional deception, and engaged only in a money speculation, entirely regardless of the true interests of the poor cretins, in whose cause he has labored all his life, and for whose benefit he has sacrificed all the pleasures and advantages of civilization and refinement.

Influenced by these and other considerations, I determined to visit and examine the institution for myself, to determine, if possible, whether there was any truth in these charges. I accordingly set out this morning from Interlaken with a horse and guide, and after ascending a very steep mountain, along a mule-path, for two hours and a half through a dense forest of larch, fir and beech, we at length reached the establishment, perched on a plateau almost on the top of the Abendberg, commanding one of the finest views in all Switzerland. Twelve hundred feet below you lies the beautiful valley and village of Interlaken, with the Lakes of Thun and Brientz; while on the opposite side we have some of the loftiest snow-clad mountains of the Oberland rising majestically before us, as the Eigher, Monch and Jungfrau. A more lonely spot cannot be found among the Alps. The main building is an irregular built chalet, part wood and part stone and stucco work, of two stories and basement, with eighteen rooms, and wing recently erected and fitted up as a chapel, with two windows of stained glass. The house is very plainly, and even roughly built, with no pretensions to taste or elegance, and furnished in the most simple manner. The reception-room is of moderate size, and contains, suspended to its walls, twenty diplomas and certificates of membership of different medical societies in various countries, and among the rest of our own *Academy of Medicine*, to which is appended the name of John W. Francis, President. The register contains the names of many distinguished men from America and every country in Europe. Dr. A. B.

Stout, of New York, was the first American who visited the institution in July, 1844. Sending in my card, it was nearly half an hour before the doctor made his appearance. He is a man a little above 40, small in stature, of a highly benevolent expression of countenance, sprightly, very intelligent, and speaks the English language remarkably well. He received me very kindly, and answered most fully and satisfactorily every question I asked. There was evidently no concealment, nor any attempt at deception. I will embody the substance of Dr. G.'s remarks in a continuous form, to save space, recollecting that they were in reply to queries which I made: "We now number," said the doctor, "about thirty patients–20 in the house and 10 out; we have some, perhaps one-half, who are only half cretins; some labor under scrofula and other diseases; many are now out on the mountain, attending to our cows and goats. We have six hundred acres of land belonging to the establishment, part of which is tilled, but most is pasture land; the soil is not very good, but we raise some wheat and vegetables enough for the establishment, besides an abundance of milk, butter and cheese. I do not give the cretins potatoes, as they are too bulky, and cretins have already enormous stomachs; they are kept almost altogether on animal food, as meat and milk, some rice and bread. The meat is always hashed up for them, as some of them have difficulty in masticating. I find that a nutritious diet of animal food is absolutely indispensable; it is the most important of all curative measures. We first aim to invigorate the body, and give, besides the most nourishing food, preparations of iodine and iron, especially the syrup of iodine of iron. The milk of our goats and cows is very medicinal, as they feed on many aromatic and medicinal plants. It also contains more oil and caseine than the milk of animals kept in the valleys. We use phosphate of life and cod liver oil, with frictions and aromatic baths. In cases of great muscular relaxation and want of capillary circulation, we use electro-magnetism, sometimes while in the bath, and sometimes it is applied in a moderate degree to the brain, and continued for a considerable period. I attach great importance also to the climate of this high mountain; we enjoy a pure bracing air, never stagnant as in the valley below, largely supplied with oxygen and ozone, highly rarified and altogether exhilerating in its effects on the system. We have an abundance of light and sunshine, for the sun shines here almost every day, while the valleys below are enshrouded in mists, and vapors, and clouds. In short, I attribute much of my success in the cure of cretinism to the climatic influences of this pure, fresh mountain air; and though it is very difficult to get here, and everything has to be brought on the back of mules, yet these advantages of climate more than counterbalance all the inconveniences of difficult access. We have no epidemics up here, while at Interlaken and all the villages in the valleys, they have some epidemic almost every season, as hooping-cough, scarlet fever, etc. It is never very cold here in winter; we are thoroughly protected against cold northerly winds; we have a southerly exposure as you see, and our average temperature in winter is 10 degrees Reaumer. The highest temperature ever experienced here in summer has been 24 degrees of Reaumer; to-day it is about 12. In the valley to-day the heat is no doubt very great, and the air stagnant and sultry, with a high dew point; here it is cool and invigorating. No malaria ever reaches here; the air is highly charged with positive electricity; in consequence the blood is more freely and thoroughly oxygenated; the oxygen is more readily obsorbed. The result is, more vigorous digestion; the appetite always improves rapidly here, and that is a most important element in the cure of cretins. We have about ninety individuals connected in some capacity with our institution at the present time. It is supported mainly by what we raise from the land; we get some donations from abroad; the Swiss people do nothing for us, as they have a prejudice against doing anything for cretins, as they look on them as *holy beings*, incapable of sin, and rather a blessing to a family than otherwise.

"Cretinism differs from idiocy, inasmuch as it is a disease. The cretin is, so to speak, a perfect being, whose physical development is prevented by the bad conditions in which it is born, and in which it lives. Its moral and intellectual life is paralysed, because its physical organs are without strength or vital force. The idiot, on the contrary, is an incomplete or imperfect being, in whom some portions of the brain are wanting, or remain in a rudimentary state. The physical development is not in proportion to the feebleness of its intelligence; we often see vigorous idiots, well developed, in good health, and possessing great muscular strength. This distinction, however, is not always well marked. Cretinism is a grave affection of the cerebro-spinal system, consisting in several pathological alterations which give rise to irregular development, check the bodily growth, and blunt and impair the senses and intellectual faculties. Autopsy has often revealed to me cerebral œdema with much water in the lateral ventricles. At a more advanced period, there is softening of the adjacent portions of the circumvolutions. Microscopic inspection in numerous cases, discloses no other visible change either in the white or grey portions of the brain, or in the elementary fibres. These pathological conditions often check the development of certain parts of the brain, especially the anterior or posterior lobes; sometimes they cause general autopsy of the brain; more rarely hypertrophy of this organ is the cause of the cerebral stupor. We sometimes meet with hardening of the brain, or some portions of it, in exceptional cases. Hypertrophy of the cranial bones, compressing the cerebral substance, characterizes the rachitic form of cretinism in its more advanced stages. The premature closing of the cranial sutures by inflammation, very often causes deformity in the shape of the head, both in cretins and idiots; but as I have often found the same thing in persons perfectly intelligent, I do not think it can be regarded as one of the pathological causes of cretinism. Indeed, the word *cretinism* is a collective name, expressing different pathological states, with a tendency to progressive degeneration and feebleness of the intellectual faculties. Observation in our Alpine valleys has enabled me to distinguish a group of precursory symptoms, which afflicts a large proportion of the inhabitants without affecting perceptibly their intellect. These are goitre, stunted growth, a disproportion between the body and its membranes, feebleness of the senses, and especially dullness of hearing and strabismus.

"The pathological symptom of cretinism is *cerebral stupor;* but this does not prevent certain isolated faculties from being developed in an extraordinary manner, as a memory for acquiring languages, musical talent, and drawing, all of which have been exhibited in our institution. Fallere and others supposed cretinism to be always hereditary, but this is not the case; the phenomenon is always toral or sporadic we have had no cases where neither parent was affected; the germ or predisposition is doubtless derived from the mother, for we often find one or more cretins in a family of children, while all the rest are unaffected, and yet all are surrounded by the same influences. The closest observation for some time after birth often fails to dedect the marks of cretinism, except it be feebleness, for the child is well formed; and it is very evident therefore that in a great proportion of the cases, at least, it must be the pernicious action of local causes which develops cretinism during the first three years of life; generally about the period of the first dentition, with symptoms of softening of the bones, of hydrocephalus, scrofula, or general atrophy. Idiotism is much less curable than cretinism, although idiots are ordinarily well formed, strong and robust; in these respects they differ from cretins, who labor under great muscular debility, and other symptoms of disease.

"You know," continued Dr. G., "that a great many causes have been assigned for cretinism: some say it is a want of iodine; some, it is owing to too much magnesia in the water; others, too much lime; some insist that it is always hereditary, etc. My opinion is, that the chief cause is *malaria.* This may be aided by poverty and filth, but the latter never produce it alone, else it would, for instance, be very common in Ireland. There are over ten thousand cretins in Switzerland, and hundreds of thousands of goitre. Napoleon ascertained that in 1811, there were 3000 cretins in the Valais alone; 7000 have been enumerated on the Southern or Italian slopes of the Alps; there are 5000 in the mountains of Suabia. There are large numbers in Russia, and in fact, in all the mountainous regions of Europe: so that, although full statistics have not yet been taken in every country, there is good reason to believe that there are over 100,000 cretins in Europe.

"In regard to treatment, the fundamental principle is to strengthen the physical development, before we undertake to invigorate the senses or the intellect, because experience has proved that such experiments are hazardous, until the vital forces are strengthened, and nutrition and the functions of the nervous system regulated. For this purpose I employ the means already mentioned, as tepid aromatic baths, frictions, cod-liver oil, syrup of iodide of iron, electricity, etc., a nourishing diet, much exercise in the mountain air, which both regulates nutrition and hematosis."

The above comprises the substance of Dr. G.'s remarks before taking me over the establishment. He first conducted me up stairs to a spacious room fitted up with objects, plates, and all the necessary apparatus for the instruction of idiots. Here were five pupils and three instructors, a lad of 17 or 18, a young girl of ten or twelve, and a female, somewhat deformed, about 30 or 40. One of the pupils had scrofulous sores on the neck, but was not a cretin; one was an idiot, laboring under chorea; and three were apparently cretins. One was teaching the alphabet, another to count on strings of beads, the third was endeavoring to learn how to distinguish colors. One, who had been a year or more in the institution, could just breathe, but with great difficulty. The other cretins, Dr. B. said, were out taking care of the flocks. The Dr. said he had not kept statistics, as he had been away a good deal; and besides it was difficult to keep patients long enough to make a fair trial; but that he probably had had altogether 100 in the establishment long enough to test his mode of management, and he was satisfied that the disease was in most cases, if taken early, quite curable; if taken later, so far curable that patients would be taught to dress and undress, feed themselves, do many kinds of work, especially agricultural, of which he spoke enthusiastically. As a means of cure one boy, whose photograph he showed me, when he came to the institution could speak but a single word, and was quite unable to take care of himself: after a staying a few years he became sufficiently master of three languages, that he went out as a teacher, and is now engaged in New York in that capacity. I saw a well written letter of his in French; his name is Frederick Mayer. The Dr. stated that, if a cretin woman have a child whose father is not a cretin, the child is never a cretin, taking after the father; and that in his opinion, *mind and intellect are always transmitted by the father, never by the mother.* He mentioned a family of mathematicians in Basle, who were distinguished for mathematical talent for several generations, although the mothers, in several instances, were weak-minded females; he also mentioned the Munroe family in Edinburgh, as cases in point. He said that Schiller, Hufeland, and other distinguished literary men, had feeble-minded children because their brains were overworked, and their nervous energies exhausted by study. Dr. B. also showed me several casts of cretin heads, which certainly did not sustain his theory of good development. Some resembled the heads of the Carib Indians, flattened and greatly elongated; some were hydrocephalic (one contained 18lb. water after death, aged 22), still the faculties were tolerably good to the last; some resembled the negro type; and not one was symmetrical or well developed. I may remark that in every cretin I have examined, I have found the capillary circulation very sluggish, the skin cool and clammy, and of a blue color, the pulse slow, feeble and languid, and every function torpid.

After showing me photographs of all the remarkable cases in which he has met with success, and related their histories, he presented me with copies of his various publications on cretinism, and showed me over the building and grounds; the Dr. then accompanied me some distance down the mountain, and bade me adieu.

After such attentions it certainly would be very ungracious and ungrateful for me to criticise Dr. G. very severely, or pretend to sit in judgment on the various charges brought against him. I will however add, that I have carefully read all I have seen alleged, and doubt very much whether the charges ought to have quite as much weight as some suppose. The institution is evidently run down, and is not what it once was; there is not an adequate corps of teachers; the Dr. is absent some weeks during every year, for which I can hardly blame him, considering his twenty years of isolation on the top of that lonely mountain. He solicits donations from the benevolent and the wealthy, which he has a good right to do, if the funds are honestly appropriated, which can hardly be doubted. There is certainly room for great abuses, where an institution is managed in the way Dr. G.'s is; but his past history, the entire devotion of his life to this one purpose, of proving the curability of cretinism, and that under circumstances of a disagreeable nature, requiring great personal sacrifices, and not a few hardships and trials—all this ought to furnish a satisfactory guarantee that his motives are good, and his intentions and purposes honest and laudable. That he is an enthusiast, it is true, and his statements, perhaps, must sometimes be taken with some allowance, as they always must in such cases; but that there is intentional deception, I cannot believe. If we can ever judge from appearances, I should say that Dr. G. is a humane, benevolent, candid, honest, Christian gentleman; and I believe his name will go down to posterity as a true benefactor of the race, and a sincere friend of humanity.—*Am. Med. Times.*

POST PARTUM HEMORRHAGE.—Dr. Hamilton stated to the Edinburgh Obstetrical Society, that in the treament of *post-partem* hemorrhage his practice was to clear out the clots from the interior of the uterus, and then to compress the uterus between the two hands. To produce effectual compression he introduced one hand into the vagina and applied it along the back wall of the uterus, and by then applying the other hand on the abdomen, he could keep the uterus flattened between the two hands for ten minutes or a quarter of an hour, or three-quarters of an hour, or till such time as all tendency to the recurrence of the hemorrhage had ceased. The uterus could be felt between the two hands like a collapsed India-rubber bottle, and the front and back walls could be held in most accurate contact. He had followed the practice, and that of grasping the mouth of the uterus, for above twenty years, and never saw a case where he could not at once and effectually check the flooding after delivery.

Professor Simpson remarked that the practice recommended by Dr. Hamilton was attended with this drawback in some cases, that the introduction of the hand into the vagina was occasionally so painful that the patient rebelled against it. In one case the patient would not submit to the introduction of the hand except on condition that she were kept under the influence of chloroform. He preferred to compress the uterus through the abdominal walls, and found them so relaxed that he could easily pass one hand behind and the other in front of the organ, so as to compress it between them.—*Ed. Med. Journ.*, Oct. 1862. *Am. Journ.*

Abstracts from Braithwaite's Retrospect.

SUBCUTANEOUS INJECTION OF QUININE.—Dr. Chasseaud finds from a great number of experiments, that one or two grains of quinine in solution injected into the cellular tissues of the arm, are equally if not more efficient in arresting fever than the large doses hitherto found necessary. This method is also free from the unpleasant symptoms sometimes produced when a large dose of quinine is taken by the mouth. Make a saturated solution of quinia in alcohol, and of this inject as much as is equivalent to two grains, under the skin of the arm, avoiding the large veins. One curious effect produced, is that the patients generally fall into a quiet sleep for some hours. The great expense of sulphate of quinine, apart from the merit of the discovery itself, render this of great importance.—DR. J. M'CRAITH.

TYPH FEVERS.—Typhus and typhoid fevers are but different types of the same disease, that is, arising from one common cause. No uniform plan can be adopted in treating fever, each single instance must be treated by itself, and symptoms must be met as they arise. Provided it be seen early the typhoid type is, of the many forms of fever, the one most amenable to treatment. When required by the severity of the local symptoms, never hesitate to have leeches applied over the right iliac region, and, in some cases, a blister over the same part is very useful, and is often followed by the best results. In the diarrhœa of typhoid the best remedy is the dilute sulphuric acid, in the proportion of one to three drachms to the eight-ounce mixture. Such medicines as chalk, gallic acid, lead and opium are often unavailingly used. The rule should be to gradually lessen the diarrhœa if too severe, never suddenly to stop it. In mild cases use the acid infusion of roses, and, when there is pain, from two to six drops of laudanum in each dose of the mixture, commonly answers well. When there are signs of irritation in the colon, and more especially when there is tenesmus, an anodyne enema acts like a charm. The use of salines or alkalies in any disease of a lowering type is to be avoided. Even carbonate of ammonia is too indiscriminately used. A very few doses of it will frequently bring on diarrhœa. Perhaps stimulants as a class are indiscriminately used—brandy, wine and beef-tea are constantly spoken of as being given to the same patient. Judgment must be exercised, for the effects are not the same. Thus wine may be given in much less risk than beef-tea.—DR. H. KENNEDY.

TYPHOID AND SCARLET FEVER—CHLORINE AND MILK.—From the very commencement of a fever there is a very great loathing of all kinds of nourishment; the bare suggestion of food creates a shudder. Yet milk will always be found grateful. It is the most unirritating and digestible food possible. Dr. Thielman writes that "he had never seen delirium occur during the progress of any fever under the influence of a full diet of milk, as after broth." If the stomach will bear it gruel may be given, made as thick as good cream, and with two-thirds milk. After the first two or three days of antiphlogistic treatment, the internal use of chloroform and chlorine is most beneficial. Let the chloroform be given in small doses at first, and increased; after each dose a great calmness and inclination to sleep is produced, unattended with any adverse cerebral symptoms. The chlorine may be administered internally either as chlorate of potash or very dilute hydrochloric acid. Chlorine, thus given, at once destroys the putrid effluvia thrown off from the various secretory surfaces of the body, so injurious both to the patient and his attendants. The body may be sponged twice a-day with tepid chlorinated water. Change of linen and the bed, where two beds can be placed in the same room, will contribute greatly to the general welfare and convalescence of the patient. Wines, all soups, and jellies, should be deferred until the termination of the febrile symptoms.—C. T. EDWARDS.

CHLORINE AND CHLORINE ACIDS.—NITRIC AND NITROUS ACIDS.—There is a remarkable difference between the action of the chlorine acids and nitrous acids in scarlatina. The former appears to exercise a direct action upon the morbid poison, while the latter possesses no therapeutical effects. The chlorine acids are to the morbid poison of scarlatina what the nitric and nitrous acids are to typhoid fever. These oxygen acids have proved the most valuable therapeutic agents in typhoid feves. These two sets of acids take precedence of ammonia as therapeutic agents. The minerel acids are, however, quite contraindicated when cerebral symptom are present. The acid must not be combined with other remedial agents which tend to mask their action, but a few drops of ipecacuanha wine and syrup of poppies may be added to nitric acid, or to the hydrochloric, should bronchial or pulmonary complicatons require; and where tonic treatment is necessary, they may be combined with bark and quinine. If nitric acid has been given in excess, the tongue becomes very red, and the use of the remedy must be desisted from. The rapidity with which nitric acid clears away the dusky hue, and brightens the countenance, by decomposing the morbid poison of the blood, is very remarkable in case of typhoid fever. This dusky hue does not depend upon feeble action of the heart, for ammonia is often to increase the mischief, probably from its having an affinity for the morbid matter contained in the blood.—DR. H. OSBORN.

ZYMOTIC DISEASES.—Let that be admitted, of which there can be little question, that zymotic diseases depend on the presence and action of specific ferments in the blood, the question arises, is it possible to neutralize them? (Claude Bernard has established the fact that fermentation may arise in the blood and give rise to poisonous principles which may in their turn produce certain grave accidents in the living frame.) We possess in sulphurous acid, when combined with salifiable bases, a means of controlling and neutralizing morbid ferments in the blood of living animals, without in any way vitiating its qualities, so as to render it in any way incapable of maintaining life. Not only sulphurous acid, but also in combinations with earths and alkalies, such as the sulphites of soda, potash, magnesia, and lime, possess in a supreme degree the power of arresting all known organic fermentations, and putrefactive metamorphoses of animal solids and liquids. It never acts as a poison on the living organism as do many other substances well known for their antiseptic properties.—DR. J. POLLI.

DELIRIUM TREMENS.—The following is Dr. Laycock's rational plan of treating delirium tremens without the use of opiates. Let the patient be put to bed, his hands and face washed, and let the room be kept cool and sweet. No mechanical restrain must be attempted, but the patient governed by a calm, gentle, yet firm and positive manner. Food should be administered in a concentrated form, in small quantities every two or three hours. If the breath smells of drink, await the elimination of the poison, unless there be reason to suspect an overdose, when a gentle emetic may be prescribed, and the stomach emptied. When food has not been taken for several days, and the hallucination are of a frightful or distressing kind, and especially when the pulse is very quick and feeble, the first sound of the heart heard indistinctly, the tongue coated, œdematous, and flat or indented at the edges, wine and brandy may be administered medicinally with advantage.—DR. T. LAYCOCK.

A curious case is related in which delirium tremens did *not* result from drink, but from great mental excitement. Forty drops of laudanum with fifteen drops of chloroform, induced sleep within half an hour of administration. This combination is one of much value in the treatment of delirium tremens. —MR. A. MURPHY.

CROUP—VERATRUM VIRIDE.—It is probable that veratrum viride will prove a substantial addition to our means of controlling inflammatory disease. It acts clearly as a depressor of the circulation. Given in croup it causes sickness, less frequent pulse, and general relief to the symptoms. Two minims of the tincture should be given every hour.—DR. C. HANDFIELD JONES.

PLEURISY.—Blisters at the commencement of pleurisy invariably protract the duration of the inflammation, and make it more severe. The property of cantharides is to cause and augment that very fibrinous state from which the membrane is already suffering. Exposure to cold and to changes of temperature by baths and the like, makes it worse, as do strained postures of the body and exercise. Opiates also cover up the evil with an anæsthetic mask, and prevent the patient knowing how he really is. Mercury, again, is an unnecessary call upon the whole system to make destructive sacrifices for the sake of a very small and not important member. Purgatives do no good, and exposes the patient to catch cold at the water-closet. On the other hand, the application of six to twelve leeches give immediate relief. After these come off, apply a very large poultice, and continue the use of poultices for several days. Take care not to allow the application of invigorating warmth by the depressing influence of cold. The poultice must be kept on hot until all pain is gone, and the breath can be drawn quite freely and easily.—DR. T. K. CHAMBERS.—*Buffalo Medical and Surgical Journal.*

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WOUNDS OF THE BRAIN.—M. Flourens has presented to the Academy of Sciences a note of a series of experiments performed by him for the purpose of showing the curability of wounds of the brain, and, what is more, the facility with which they are cured. He trepanned the skulls of dogs and rabbits, made a small opening through the dura mater and into the substance of the brain, and then put bullets into the wound. These bullets gradually penetrated through the cerebral matter by their own weight. When the ball was small, he found that the whole thickness of the lobe of the brain or of the cerebellum might be traversed by it without occasioning any symptom, or accident, or disturbance of functions. The fissure made by the passage of the ball remains for some time as a canal; it then closes up and cicatrizes. In one case of a rabbit, a ball was placed on the posterior part of the cerebellum, immediately above the vital point (Flournes' *nœud vital*). When the ball had reached that part, and had exercised a certain degree of pressure, the animal died.—*Med. News*, from *Dub. Med. Press.*

ORIGINAL PAPERS

On the Frequency of Aneurism and its Causes in California.

BY A. P. HAYNE, M.D., SAN FRANCISCO.

"The first step towards treating disease successfully," says the author of the First Principles of Medicine, "is to ascertain, as far as possible, the nature of the functional or structural *alteration* which has taken place in the tissues of the part affected. In default of this knowledge, which is sometimes unattainable, we can only depend upon analogies, drawn from what we know to be the fact in other cases, and from physiology, which is a careful observation of the phenomena resulting from the functions of the different parts in health." Hence the study of the history of the causes of disease has always been considered of paramount importance, to a correct understanding of the laws which govern their symptoms, progress, termination and cure.

Among the most potent and influential of these (considered in the light of cause and effect) is certainly the climacteric peculiarities of different latitudes, and in illustration of this point, as well as in the hope evoking inquiry, we purpose offering a few remarks upon the frequency of Aneurism and its causes in California.

Whether considered in a statistical or hygienic point of view, the common occurrence of these tumors in this latitude renders the subject of striking interest to the pathological student. Before attempting to solve the question at issue, it may be proper to take a brief review of some of those causes which are generally considered as predisposing to the disease in question. "The causes of Aneurism," says Erichsen, "may be divided into those which pre-dispose to, and those which excite the disease." Among the former, he considers "any change which diminishes the elastic resiliency of the vessel." Constituted as the bloodvessels are, of a series of tunics or coats, each with its own peculiar structure, it will readily be seen how any cause which interferes with the natural elasticity of such a tube, must of necessity give rise to a greater or less disturbance of its healthful action. Among the causes which tend to produce this result, most writers enumerate age, idiosyncracy or cachexy, and climate. Under the second division, or exciting causes, wa find traumatic injuries, strains or blows and violent muscular efforts mentioned. It is of the first or *predisposing causes* only, that our remarks are applicable.

Let us first see what is the nature of these changes, and how they are produced? The first and most frequent lesion observed is "a granular or fatty degeneration occurring in the inner or middle coats of the artery."

Without entering into any discussion of the nature of these changes, we pass at once to the second pathological state, which is generally known as "a plastic deposit, of a fibro-albuminous character." The seat of this is usually in the free surfaces of the vessel, and in the large arteries. (Erichsen.) This deposit is described as "opaque, semi-transparent and elastic, and attached to the inner or lining membrane."

A third state, known as "calcification," although strictly speaking the term is improperly applied, as it possesses none of the true characteristics of bone, completes the series.* These three changes, then, seem to constitute the pathological conditions which it gives rise to, and are productive of aneurismal developments. Two of them, the "granular" and "plastic" are considered as *destructive* processes, while a fourth condition, which is now brought into play, and described as a "conservative process," takes place in the outer coat. This consists of a "thickening, indurating or strengthening of its tissue, by a deposit of plastic matter." (Erichsen.) Having thus briefly glanced at the pathological conditions that are to be met with, the question presents itself, upon what do these changes depend, and by what causes are they induced? If we consider aneurism as some writers do, as a state of "retrograde metamorphosis," or with others, as a "depravation of healthy assimilation," we only furnish a definition without a solution of the question—we still stop short of a rational and satisfactory explanation.

Is it in the *predisposing* causes that we must look, and to them only do I propose to direct attention. Of these we shall notice only two, viz.—*climate and occupation*, for to their influence, as we shall attempt to show, are the two chief causes of aneurism in California due. The causes to which we refer are *diminished capillary circulation* and *exposure to damp and wet*. That the first is dependent upon climate, and the second a necessary consequence of the operations of our mining districts, will appear from the facts which we propose to adduce.

We are told (and statistics seem to prove the fact) "that aneurism is a disease of cold climates—that in India, China and Africa it is rare, and that in England it is much more common than in France." In the Southern and Gulf States of our own country, it is also seldom met with, while in Mexico and Central America it is almost unknown. What, then, are the prevailing characteristics of the climate of California, and in what do they differ from other countries of the same latitude?

If we look at the topography of our State, we will find, that between the two ranges of mouutains which traverse the State from north to south, there is a central valley of about nine degrees of latitude and four of longitude running in a direction from north to south-east, and embracing the chiefly populated portion of the State.

East of the Sierra Nevada range, where it divides the county of Tulare nearly in its centre, and to the south, embracing San Bernardino, Los Angeles, San Diego, and a half of Tulare, we have an area of nearly one-half of the State which is sparsely populated, with a sandy soil, portions of which are subject to overflow, with a warm and tropical climate.

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* Science and Art of Surgery.

We have no data on which to found an opinion; but from the close similarity of the climate to that of Mexico and Lower California, we would suppose that aneurism was rare in this entire section. Along the coast west of the coast range, and extending from Mendocino to the southern extremity of the State, we have a narrow belt of land, bounded on one side by the ocean, and on the other by a range of mountains. This belt of land increases in breadth as we go south (for the Sierras and the coast range approximate each other, and nearly join when they reach Los Angeles) in which, partly from the effects of the prevailing winds, which blow either from the north-west or south-west, and partly from the heavy dews during the dry season, the climate is very uniform.

Let us turn now to the central valley, in which four-fifths of the population is embraced. Here we have, with the exception, perhaps, of a very small portion in the extreme north, a climate which is more uniform than any similar extent of country we know of. In the winter, except (as we have just said) among the high elevation, the degree of cold is one-half less than in the most Southern States—while in the summers, although warm in the day, almost invariably we have cool evenings and nights.

The average temperature of four-fifths of this immense section of country may safely be estimated at not more than 50° or 60° the year round. It is in this section, as we have already said, that the great body of our population is centered. It is the region for mining, and farming, and agriculture generally.

In order fully to appreciate the influence of such a climate upon the general constitution of its inhabitants, and indirectly upon the great system of the circulation, of which we are now speaking, let us glance for an instant at the general features of that system and the laws which govern its movements. We have a central propelling power (the heart) sending by its alternate systole and dyastole, the current of blood through the entire system, to be returned to it by the veins. The venous and arterial radicles are connected by a third system of vessels (the capillaries) which play an important part in the changes produced by the circulation. In them the flow of blood is slow, imperceptible to the naked eye, and liable at any moment to be accelerated or retarded. In health they permit only a certain kind and amount of fluid to pass, while in disease they often refuse the transmission of the minutest currents. "The apparatus of the circulation then," is reduced, to use the language of Mattenoci, "to a system of canals or tubes forming a complete circle." This apparatus becomes more complicated as we ascend in the scale of beings. It becomes complete, when for the executing of its functions, two orders of vessels are employed whose structure is very different. In one, the blood travels from the great trunks towards the smaller, while in the other it moves in the opposite direction.* If we examine more closely into the structure of these two orders of vessels, we find also a very wide difference in them. In the arteries we note a middle very thick membrane, composed of circular fibres of a peculiar nature, called "the yellow elastic tissue.' It is the seat of their elasticity, and adds to the force of propulsion which the heart gives to the blood. It is placed between the internal or serous coat, and the external or cellular. These tissues likewise enter into the formation of the walls or sides of the veins; but in them the "yellow elastic tissue" is less obvious. Their external coat is thin, smooth, resisting and and extensible.* The capillaries constitute the extremities of these two systems of tubes, and complete the circle. (Ibid.)

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* Mattenoci's Lectures, p. 310.

Let us now see what effect such a system of canals or tubes has upon the circulating fluid. The first effect is a diminution of velocity. This is due partly "to the friction against the sides," and partly "to the numerous curves and the resistance of the column put in motion." The pressure of the blood as estimated by the hœmodynamometer, has been found by numerous experiments, to be equal to that of a column of mercury of 148 millemetres; and it is curious to remark, says Mattencci, "that this pressure has no relation, in different animals, to their weight." Poiseuille calculated, that at the moment of contraction of the heart, the blood is propelled into the aorta of a man, equal to a pressure of about 5¼lb. troy, supposing the column of blood to be at rest.† In the capillaries, the circulation also presents points worthy of notice, The same experimenter found that the motion of the blood-globules in these vessels ceased when the heart was raised or bound, and that this continued only for a few minutes, on account of their diminished volume and a kind of contraction of their coats, when the blood ceased to be propelled by the heart. By the aid of the microscope he saw an immovable layer of serum adherent to the coats of these vessels, and that the blood moved in *this tube, formed by its own substance.* He also examined the same fluid both in a glass capillary tube, and in the capillary blood-vessel of a living or dead animal, and found it to follow the same laws in all cases. "These facts," says he, "prove that the blood really circulates in these minute vessels in a tube always formed in the same manner, viz.: of an immovable and adherent liquid layer, which is the same as the liquid that flows through it." We might extend our notice of these interesting experiments, but what we have already quoted will suffice for our present purpose. To return, then, from this digression. It is upon this system of vessels, that the effects of a climate such as we have described, and of other causes which we shall presently refer to, is primarily shown. The first result is a diminution of cutaneous exhalation, and the second a retardation of this minute capillary circulation. This retardation acts more or less as a barrier to the general circulation, and reacts upon the arterial system. The elasticity of these vessels is called into play, and an increased tax is laid (as it were) upon their powers. This reflex action is finally transmitted to the great central organ, and the consequence is, that an increased power of propulsion is rendered necessary, which gradually and by the permanent continuance of the same cause, produces a state or condition of the delicate lining membrane of these vessels, which ends either by a rupture, or (by a well-known law of nature) causes them to assume the character "of products still lower in the scale of organization, and gives rise to granular and fatty degeneration, or plastic deposits."

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* Mattencci's Lectures, p. 324.

† Mattencci's Lectures, Art. Circulation.

We have thus far confined our remarks to the effect of climate alone upon the capillary circulation. We now turn, briefly, to consider other exciting causes, viz.: those embraced under the general term occupation. Exposure to dampness and moisture first attract our notice. Let us for a moment see what constitutes the daily life of the class, who are the usual examples of aneurism. The occupation of the miner is too well known to require any description from us. The most casual observer cannot fail to see how much the powers of life are taxed in his case. If we add to the effects of such exposure the violent muscular efforts of the tunnel, the blast and the flume (often waist deep in water whose temperature is nearly that of winter), we will be better able to estimate the effects of a life which thousands lead. True, he may for a while not feel it, but in time (and that often a brief one) the effect upon his capillary circulation will show itself, and the small softened spot, or the rupture of the delicate lining membrane of an artery, increased and rapidly augmented by a continuance of the cause, will show itself in the form of a pulsating tumor, for which he will seek the aid of the surgeon. We select this class because it is chiefly in them, or those engaged in similar pursuits (as far as our observation has extended), that aneurism is generally seem. There is, however, another exciting cause, which is worthy of notice—we allude to the free and general use of alcohol in all its forms. There is perhaps a greater amount of general stimulation on the Pacific slope than in any other section of our country. We live in and by excitement, and in no class is this more true than in the gambling life of mining. The effects of alcoholic stimulants not only upon the heart and circulating apparatus, but upon the brain and nervous system generally has been so fully and satisfactorily shown by Dr. Carpenter, in his excellent work, that it is only necessary here to refer to it. Now, although the working man may be benefitted, and doubtless is, by a proper allowance of stimulant, yet how many are there, especially among us, who combine prudence with discretion? Before concluding our remarks, we would say a word in regard to those sudden changes of temperature which occur (especially in the interior of our State) at night. That a difference between a temperature of 110° or 120° to one of 60° or 65°, acting upon a system at rest and generally in repose, should exert a powerful influence upon the capillary and cutaneous surface, is not surprising. "Next to violent exercise, there is nothing gives the heart more work to do than a change of temperature." Let the physiologist observe the healthy organ, and the physician examine it in a state of disease, and they will find that the addition or subtraction of heat to the surface is accompanied by a longer and stronger stroke, as felt e finger, and by a longer and stronger sound as heard by the ear.

What is technically called the "interval" is shortened, and thus is encroached upon the only wink of sleep that industrious muscle ever indulges in. (Dr. Chambers.) *Pacific Med. and Surg. Journal.*

A local or general congestion thus produced may be either transient and innoxious, or permanent and injurious, according to the continuance of the cause, or the previous state of the system. It is a well-known fact that the impressibility of the system, and the liability to disease, is greater during sleep than at other times. Now, as these depressing influences occur at times devoted to rest, may it not be considered as one of the predisposing causes to which we have referred? Another feature of our climate is found in its extreme rarity and its positive electrical condition. What influence these conditions may have upon the animal economy is at present a matter of doubt. That they exert a stimulating influence upon the nervous system is generally conceded; but besides this, the act of nutrition itself is doubtless accelerated by such an atmosphere. We know that in this process, "a part of the oxygen of the arterial blood disappears, and is replaced by an excess of carbonic acid in the venous blood;" in the capillaries "oxygen combines with carbon, the product of which is combustion." In an atmosphere highly charged with oxygen, this process must be increased in relative proportion. Again, since it has been found "that the volume of carbonic acid expired is smaller than that of the oxygen which has disappeared, we must admit that not only the carbon, but even the hydrogen, which forms a part of the organic elements of the blood and the tissues, combines with the oxygen to form water."* We might extend our remarks upon the production of animal heat and the causes which influenced it, did time or the occasion require. Enough has been said, however, in the brief glance we have taken, to show the influence of a climate like ours upon the great systems of circulation and innervation. In concluding our remarks, we must acknowledge to have but imperfectly touched upon a subject which seemed to possess some interest in the medical history of our young State. Be our conclusions correct or not remains to be seen. Such as they are, we submit them with all due deference to the consideration of the medical public.

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* Animal Chemistry.

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DEATH FROM FOREIGN BODIES IN INTESTINES.—Dr. Gray exhibited to the Buffalo Medical Association, Dec. 2, 1862, seven stones and the handles of two pocket knives taken from the intestines of a man who had died suddenly. The larger stones were an inch and a half in their long, by an inch in their short diameter, and would weigh from one to two ounces each. It was said that the man had been in the habit of swallowing such articles as stones, knives, swords, etc. for several years, for the amusement and astonishment of spectators, and for the purpose of obtaining a living by contributions. It was supposed, by the stones being found somewhat on the way in passage, that they had been swallowed several days; one large stone was found in the traverse colon. They had produced death by inducing inflammation.—*Buf. Med. and Surj. Journal,* Jan. 1863.

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

I.—ORIGIN OF MEDICINE.

Let us lift the veil of long-past centuries, and, through the obscurity which surrounds the earliest periods of the history of our race, endeavor to ascertain the birth of our science. "Its origin," says an elegant French writer may be traced to the cradle of mankind—Medicine was born with pain, therefore with man himself. The feebleness, the nakedness of this pretended king of nature, the instinct of self-preservation, the natural impulse to succor our fellow-creatures—such were its primary causes. A suffering being—a heart moved by pity—behold the first patient and the first physician."*

In the early ages of society, chiefs, heroes, poets, and above all priests exercised an art which augmented their power and gave them consideration and importance in the eyes of their people. (See Homer.) The majority of authors are of opinion that Egypt was the country in which medicine was first cultivated as a distinct science. Her priests, called Pastophores,† were at the same time her physicians, and their practice is said by some to have consisted principally in magical incantations.‡

Under the Mosaic law, Jewish priests were required to decide upon the existence and nature of certain diseases, such as leprosy, etc.,‖ and the sacred books of the same nation celebrate the knowledge of Solomon as a physician.§ Their principal object appears to have been to promote cleanliness and prevent contagion.

In China, as elsewhere, the necessity for remedies for the alleviation o sufferings inseparable from humanity, suggested the employment of medical means long before the science was practised as a profession. The Chinese have works upon this subject which date three thousand years back, and what is very remarkable, they are said to have been written by two of their first Sovereigns—(Chin-nong and Hoang-ti.) If we may believe some historians, this people had a work on Anatomy 2700 years B. C., entitled Nim Kim.

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* Reveillé-Parise. Physiologie et Hygiène des hommes livrés aux travaux de l'esprit. Page 20.

†"C'étaient une espèce de prêtres ainsi appelés parce qu'ils portaient de longs manteaux ou parce qu'ils servaient à porter le lit de Vénus, en certains jours de cérémonies. Ces pastophères étaient principalement ceux qui pratiquaient la médecine en Egypte."—Le Clerc. Hist. de la Méd., liv. 1. chap. 5.

‡ The words *incantation* and *charm* appear to have been derived from the ancient practice of curing diseases by poetry and music.—Carmen.

‖ Leviticus. Chap. xii—xiv—xv.

§ Josephus informs us in his " Antiquities of the Jews—lib., viii. chap. 2, p. 5,) that Solomon discovered a plant efficacious in the cure of epilepsy, and that he employed the aid of a charm or spell for the purpose of assisting its virtues.

The origin of medicine among the Greeks is obscured by fable and mythology. The introduction of the science was attributed by them to Apollo, who was a mystic representation of the sun. Hence, as the eye of the world, he is reputed to have been the God of Divination. The centaur Chiron, born in Thessaly, (a country renowned for its breed of horses and probably an expert equestrian,) lived about the thirteenth century B. C. We know but little of him. He is said to have dwelt in a cave of Mount Pelion, and to have instructed in medicine the Argonauts and the heroes who were engaged in the siege of Troy. Next comes Æsculapius—by some regarded as the son of Apollo, by others as the disciple of Chiron, but the Phenicians contended that he was a pupil of Hermes.* Æsculapius, according to the custom of the time, was deified for the services he had rendered to humanity. Hygeia and Panacea, his pretended sisters, shared the homage offered at his altars.†

At this epoch and probably for two or three centuries after, medicine was limited to the art of healing wounds and ulcers. Internal maladies were considered as evidences of celestial wrath; and were treated principally by superstitious practices.

However, several beverages, supposed to possess medicinal virtues were in use‡, among them the famous *Nepenthe*‖ celebrated by Homer, as brought from Egypt by Helen. It is supposed to have been a mixture of opium, and was used only for wounds and as a sedative in cases of violent emotion. For a long time, however, various therapeutic means, discovered either by instinct, accident, or by an imitation of natural phenomena, had been in use among the Egyptians, from whom the Greeks derived their first knowledge of the arts and their first religious customs; but it was not until a much later period that blood-letting, baths, vomits and purgatives formed a part of Greek medicine.

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* Hermes is regarded as the father of sciences in Egypt. It is said that he had all his knowledge in medicine engraved in hieroglyphics on pillars which took his name. The pain of death was inflicted on physicians who in their practice deviated from his precepts.

† The practice of Æsculapius was exceedingly simple. (See the opinions of Plato, quoted by Sprengel in his His. of Med.) According to mythology he was so successful and saved the lives of so many persons that Pluto became jealous of him and caused Jupiter to sentence him to death.

‡ According to Homer, Machaon having been seriously wounded, Nestor gave him a mixture of wine, cheese, onions and flour.—OD. ch. xi, v. 630.

‖ Homer represented the Nepenthe as a medicine which dissipated grief, soothed angry feelings into tranquility, and steeped in oblivion all the woes and sorrows of man. It was mingled with wine.—(Odyssey, book iv, verse 220.) Many discussions have arisen among the learned with regard to the nature of this precious substance. Some, with Pliny, have believed it to be the Inula Helenium, so called from Helen; others, with Galen, have pronounced it to be Bugloss, (Anchusa Officinalis;) while others had supposed it to be coffee. A far greater number, however, believe it to be opium.

Until the sixth century B. C., the science was practised only by the pretended descendants of Æsculapius, who carefully concealed its secrets.* The temples of Epidaurus, Pergamus, Rhodes, Cos, Cnidnos† and others, were erected by them in honor of the pretended God; and the ministers at his altars were called Asclepiades. They carefully recorded on votive tablets and on the walls and pillars of their respective temples the histories of the cures that had been effected in them; thus transmitting to their successors the results of their observations. They pretended to be guided in their practice by oracles, dreams, etc., making the people believe that they possessed supernatural power and that they were in communication with their Gods.‡

Such was the state of medicine when Thales of Miletus, who flourished at the commencement of the sixth century B. C., first induced the Greeks to examine the phenomena of nature for themselves. He also taught them the elements of the physical and physiological sciences. Unfortunately, this noble genius and his distinguished followers devoted themselves, from the first, to researches into questions of an insoluble nature. Instead of observing and collecting facts, they abandoned themselves to the conceptions of imagination, and to hypotheses on the nature of God and that of the soul, and blending their philosophy with medicine, they made the first step into that labyrinth of error in which so many splendid geniuses have been lost. Led away by ideas of unity, which have since so often misguided the systematists of all countries, they attributed the phenomena of the universe to a single principle. Pythagoras solved difficulties by referring them to the doctrine of critical days and the influence of numbers; Democritus by reference to his atoms; Heraclitus to his four elements. "Thus," says Cabanis, "medicine derived evil as well as good from the early philosophers, for although they rescued it from the chaotic darkness in which it wandered, it was only to heap upon it the wildest and most hazardous hypotheses."

But while medicine was thus diverted from its legitimate object by the dreams of the early Greek philosophers, the Asclepiades were accumulating in the secret recesses of their temples those precious materials which must always form the true and certain basis of the science. Experience, then as now, prevailed over all the theories of the learned, and led to the study of observations collected in the temple of Cnidnos and Cos; the last of which claimed the honor of sending forth the illustrious Hippocrates—justly styled ‘the Father of Medicine.”

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* One of their laws says express'y; "Sacred things cannot be revealed to other than the elect, and must not be confided to the profane until they have been initiated into the mysteries of the science.,'

† According to Plutarch they erected their temples on high grounds with a fine exposure. The air respired in them was naturally pure from their elevated location; and was rendered still more salubrious by the woods which encompassed them.—(Cabanis, Revolutions of Med. Sciences.) The patients were not allowed to die in the temples, and when symptoms threatening to prove fatal made their appearance, they were conveyed thence to some convenient situations in the neighborhood.—(Moir, History of Medicine, page 11.)

‡ The priests were of course the interpreters of the dreams. Sometimes the guardians of the temples, who had rooms in the neighborhood, dreamt for the patients, when they supposed they had not sufficient faith.

II.—HIPPOCRATES.

Each profession, each art, each science has its chief, its hero, its benefactor. Radiant stars!—shedding their light far down the path of ages. Their immortal names have become identified with their vocations, their glory with the glory of their countries.

Medicine was yet in its infancy, when a man appeared of bold and penetrating genius, and at his advent ignorance, superstition and the subtleties of philosophers disappeared. He found a chaos of undigested matter, and in its place he left medicine in the shape of a science. To accomplish this he had every thing to do—and did every thing—or at least as much as any individual that succeeded him.

This truly great man was Hippocrates, a descendant of the sacred family of the Asclepiades, born, according to Soranus, in the eightieth Olympiad.* (450 years B. C.)

Hippocrates separated medicine from philosophy—he proscribed the application of the false principles of physics and the hypotheses which served as an explanation for all the phenomena of the universe, even before examination—he showed that observation is the only guide to those truths, which nature permits the human mind to reach—that it alone should furnish the general principles in which are embraced the greatest possible number of facts and that in fine, all that is inferred as the consequence of principles admitted *a priori*, however probable, should be rejected as destitute of proof.†

Hippocrates has left us a master-piece which excites our surprise and admiration,‡ when we remember the remote age in which it was written. How much exactitude in his aphorisms! How much precision in all his works! And if one demands how he arrived at so much exactitude, precision and knowledge, let him interrogate the immortal books, and he will find with what care this great man avoided an exclusive faith in any one system, choosing what he deemed good and rejecting what was bad in each of them. Thus, Hippocrates was not only the Father of Medicine, but the founder of the Eclectic school. *

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* He was the son of Heraclides and Praxithea, and according to the genealogies of the Ascelpiades, the seventeenth in descent from Æsculapius. The name of Hippocrates belonged to several of that family; the one whose history we are tracing was Hippocrates II. It is remarkable that no correct history of the life of so distinguished a man has been transmitted to posterity.

†“Sa philosophie se distinguait de celle de tous les anciens Grecs, en ce qu'il ne hazardait aucune conclusion qu'après avoir recueilli une quantité suffisante d'observations.—Sprengel. His. de la Med. t. i. p. 297.

‡“Je ne connais aucun écrit d'homme que je regarde avec autant d'honneur et d'amour.”—Montaigne, (speaking of Hippocrates.)

Though Hippocrates discovered the true path in medicine, he did not always adhere to it. Let us not, however, hastily condemn him, but remember that we, of the present day—2300 years after his time, with all our pretensions to observation, with all our boasted progress, are ourselves far from being examples of perfect consistency. It must also be recollected that at that epoch, anatomy was in its infancy, that physiology was comparatively unknown, and that Materia Medica consisted almost entirely of the vegetable substances of Greece.

Some of the most ardent admirers of Hippocrates, wishing to sustain that he was ignorant of nothing connected with medicine, have pretended that he had a perfect knowledge of anatomy, and that the circulation of the blood was not unknown to him. But Le Clerc proves on the contrary, that both in anatomy and physiology, he was but little if at all superior to his contemporaries. †

We have already said that Hippocrates had the glory of separating medicine from philosophy. A just appreciator of systems *a priori*, he abandoned them to others, who gave themselves to the guidance of imagination, and he established the natural sciences on their true basis. "Before all," said he, "our senses should be exercised, reason comes after, for reason is only a kind of recollection of facts which observation has made known to us." "Reflection supported by observation conducts to truth, but if based on reasoning merely hypothetical and probable, it leads into impracticable paths."

A glance at his numerous writings is sufficient to prove that he proceeded according to the experimental method—that he was independent of all systems—in a word, that his great mind even had glimpses of the theory which Bacon promulgated two thousand years after.

Hippocrates was the founder of the sympathetic doctrine. His precepts on hygiene are still consulted with great benefit. His treatise, "de aeri, aquis et locis" is a master-piece of ancient medicine. In his work on epidemics, he examined separately the facts which came within the sphere of medicine, he collected them according to their analogies of cause, progress, tendency and termination, and expressed them in general aphorisms.*

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* In reading the writings attributed to Hippocrates, many of which are according to historians, the works of several men, commentators agree in remarking the successive imprint of the doctrines of Pythagoras, Thales, Empedocles, Democritus and Plato. It may also be observed that all founders of sects, from Galen to Broussais claim as their authority him whom all agree in calling "The divine Father of Medicine." Solidism, humoralism, the doctrine of the elements and of the gases are all to be found in his pages. Are not these striking proofs of the Eclectic character of the works of Hippocrates?

† Owing to the custom of the time which required that the dead should be buried with the utmost celerity and decency, with the exception of Osteology, the knowledge of Hippocrates on the human structure was undoubtedly very scant. However, it appears that, like Empedocles, he dissected the bodies of the lower animals, (monkeys, etc.) It is very certain that he had no correct idea of what we call muscles. He confounded the veins with the arteries. His notions on the nervous system were still more obscure.

He first showed the necessity and importance of considering age, sex, temperaments, habits, etc.

Hippocrates regarded the *fluids or humors* as the principal seat of all disease. They were four in number- blood—phlegm—yellow and black bile—and these in combination with the four elements, whose qualities were heat—cold—moisture—and dryness, he believed, had a tendency to produce the four temperaments in man. But though he admitted the theory of Empedocles on the elements, and acknowledged his belief in their sympathetic power over the humors of the body, he attached not an unlimited importance to them, and even declared in his treatise, "de Prisca Medicina," that the theory of Empledocles was insufficient. Generally, the pathological views of Hippocrates are just and of high authority, and, though his theory of diseases, formed on the alteration of humors in the human economy is frequently hypothetical, it is far from being like that of the Dogmatists who succeeded him, a theory purely imaginary, for it was based on a certain collection of facts.† To this we owe the existence of the Humoral school which governed, almost exclusively, all sects and theories, until the commencement of the eighteenth century.

Hippocrates divided febrile diseases into four stages; the commencement, the increase, the acme and the decline; giving the term crisis to any sudden yet settled mutation either for better or worse. In diseases of extreme violence, this crisis may take place as early as the fourth day; in acute ones it happens on the seventh, eleventh or fourteenth. Diseases are chronic when they extend beyond sixty days.

Hippocrates was not unacquainted with the doctrine of Metastasis. He is also regarded as the inventor of the art of prognosticating, and his observations were so clear as regards symptoms, that hardly anything escaped him. *He applied his ear to the chest, and used percussion*‡ to ascertain from sounds the presence or absence of fluids.

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* There has been much discussion as regards the authenticity of the various treatises which bear the name of Hippocrates. Those recognised as undoubtedly genuine, are—the Epidemics, books first and third; the Prognostics; the Aphorisms; on Diet in Acute Diseases: on Wounds of the Head; and on Air, Water and Soils.

† "Hippocrates, in his pathology, gave less attention to the proximate than the remote causes of disease. Though he admitted the theory of the four elementary humors, he very seldom made it serve to explain the causes of maladies; and when he did so, it was always in an obscure and indirect manner. Few speculations are found in his writings on the essence of diseases."—Sprengel. Histoire de la Medecine, t. 1, p. 311.

‡ He ascertained by succussion (id est, by giving the body one or more slight shakes) the existence of a fluid in the thorax. He was also the first who applied the ear to the chest, but this method was soon forgotten by his successors and not practiced to any extent by himself. Indeed, in his several works he merely says a few words respecting it, and certainly not enough to diminish the glory of Laennec as its true discoverer. The same remark is applicable to the father of medicine in regard to percussion; he had some glimpses of it; but to Avenbrugger is due the merit of its application to the diseases of the chest.

Believing that "nature was the first of physicians," and that her efforts almost always tend to cure, he placed in her the greatest confidence. It is for this reason that he is censured by some for inactivity in his treatment. However, vomits, purgatives, diuretics, astringents, etc., as far as they were known at that period, were freely used by him, as well as the lancet. His attention was not confined to the alleviation or cure of internal diseases; in surgery he was infinitely superior to his predecessors.

What a brilliant destiny Hippocrates bequeathed to the science for which he had done so much! And who can say what medicine would have now been, had his successors wisely adhered to his admirable precepts on observation and experience, instead of wandering century after century, in vagaries and subtleties—following only the most objectionable parts of his theories?

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On Diseases of the Chest, including Diseases of the Heart and Great Vessels; their Pathology, Physical Diagnosis, Symptoms and Treatment. By Henry William Fuller, M. D., Cantab. Fellow of the Royal College of Physicians, London; Physician to St. George's Hospital, etc. London: John Churchill, 1862. pp. 703. For sale by H. H. Bancroft & Co., Montgomery street, San Francisco.

In our last number, we announced among other works of importance, a volume on the Diseases of the Chest, by Dr. Fuller—a book of great excellence, containing many original views. While the author has availed himself of the labors of his predecessors, (not indiscriminately, as is too often the case, but with superior judgment,) he has added much from his own observation and experience. Thus the explanation of the mechanism and the true significance of ægophony, and of the sundry other abnormal sounds, is at variance with that which is generally received; but in this, and in every other instance, the author carefully states the ground on which his opinion rests, leavnig it for future observers and experimentalists to determine their real value. We regret not to be able at present to give a synopsis of the whole volume, especially of the important chapters on consumption, and of that portion of the book which is devoted to the consideration of diseases of the heart and great vessels. The following selection from this valuable work gives the views entertained by the author on intra-thoracic tumors. It is particularly interesting for the differential diagnosis which is admirably given.

"In the sections devoted to percussion and auscultation frequent reference was made to the signs produced by intra-thoracic tumors, and the subject was partially mooted again when tuberculous enlargement of the bronchial glands was under discussion. It may be desirable, however, to point out more distinctly what can and what cannot be done towards their diagnosis and treatment.

It should be premised that tumors in the chest are either aneurismal or produced by morbid growths, usually of a malignant or scrofulous character. Malignant tumors are sometimes attached to the parietes of the chest, but more commonly like aneurism, they are developed in the mediastina, and ordinarily take their origin in the glandular structures. The nature of the growth has little influence on the symptoms produced, for the phenomena are not peculiar to any special form of disease, but are referable to the interference with the respiration and circulation produced by the pressure of the tumor on the surrounding parts. Thus the physical signs and general symptoms vary not only with the seat of origin of the tumor, but with its size, the direction in which it enlarges and the nature of the organs on which it consequently exerts pressure.

The physical signs are of two kinds, viz., those which indicate the presence of consolidation and those which bespeak pressure on the adjacent structures. When the tumor is attached to the parietes, or occupies the anterior portion of the chest, there will be intense dulness on percussion in the region of the tumor and strongly marked parietal resistance; weakness, or absence, or some modification of the respiratory sounds; and, according as the tumor is large or small, and of an inelastic or of a vibratile nature, there will be increase or absence of vocal resonance and vocal fremitus, and increased transmission or otherwise of the sound of the heart. But the signs of pressure will be even more important. The intercostal spaces may bulge under the influence of the pressure from within, and even the bony structures, such as the ribs, the sternum, and the clavicles, may gradually wear away until perforation takes place, and the tumor presents itself externally. Indeed, circumscribed pulsation is often felt, and with it a thrill transmitted from the heart or large vessels. The heart may be pushed out of its place, or the aorta may be compressed, occasioning systolic murmur; or the innominate or subclavian arteries may be pressed upon, and innominate and subclavian systolic murmurs thus produced, and the corresponding carotid and radial pulses more or less weakened; or the superior vena cava may be compressed or surrounded by the tumor, in which case the venous circulation is interfered with, so that distension of the jugular, subclavian, axillary, and other veins occurs, tortuous and swollen veins show themselves superficially on the chest and abdomen, œdema commences in the face, neck, and arm, and upper part of the body, and ultimately the patient becomes drowsy from congestion of the brain and the stagnation of the blood in the venous sinuses of the dura mater; or the pulmonary artery may be subjected to pressure, which may induce a systolic pulmonary murmur, dyspnœa consequent on a deficiency in the supply of blood to the lungs, and intense congestion in the whole venous system; or the pulmonary veins may be more especially subjected to pressure, whereby dyspnœa, hæmoptysis, œdema of the lungs, and hydrothorax, will be produced; or the inferior cava may be pressed upon, and congestion of all the abdominal organs produced, which results in distension of the veins of the lower extremities, and ultimately leads to ascites and œdema of the legs and thighs; or the bronchi may be pressed upon and irritated, so that increased mucous secretion is induced, and râles, ronchi, and prolonged expiration result; yet further, the bronchi may even be perforated by the pressure, and hæmoptysis, and violent, spasmodic, ringing cough produced; or the lung itself may be seriously encroached upon and deprived of air by the long continuance of pressure, until respiration ceases to be heard over the part, and percussion elicits intense dulness; or the tumor may give rise to excessive local irritation, and pleurisy, bronchitis, pneumonia, or even gangrene may be set up. When the tumor occupies the central and posterior portions of the chest, the dulness on percussion is seldom so marked as in the former instances, and may not be perceptible on gentle percussion, though it is brought out by a forcible stroke.

The auscultatory signs are very variable, being modified by the size and physical nature of the tumor, and by its precise relation to the surrounding organs and the walls of the chest. Sometimes the breathing is weak or almost absent, either locally or even an entire side, and vocal resonance and vocal fremitus are also absent; but not unfrequently, when the trachea or the larger bronchi are pressed upon, the percussion note is of a tubular or amphoric character; the breathing, instead of being weak or absent, may be intensely loud and tubular, the expiratory sound prolonged, the vocal fremitus and vocal resonance increased, and the cardiac sounds transmitted far beyond their usual limit. If the phrenic and the vagi nerves or the pulmonary plexus are pressed upon by the tumor, disturbance occurs in the respiration; whilst, if the recurrent nerve is implicated, aphonia or some other modification of the voice is induced. If, as often happens, the œsophagus is pressed upon, dysphagia is the inevitable result, and if it is perforated hæmatemesis may occur; if the thoracic duct were compressed, emaciation would proceed with extreme rapidity; if the trachea is subjected to pressure, stridulous breathing and weakness of voice are induced, the cough, which is paroxysmal, is either very weak or else loud, shrill, and clanging, and the expectoration is often streaked with blood. The trachea, the bronchi, the pulmonary artery, the œsophagus, and other structures, are liable to be perforated by the tumor.

The general symptoms of intra-thoracic tumor possess little of a distinctive character. A tumor may long exist in the chest without giving rise to any notable symptoms, and the patient may not be aware of its presence until its development has led to pressure on the surrounding structures. Then occurs pain, which is variable in amount, and is sometimes altogether absent, but which, when constant, as it often is in the spine, at the junction of the neck and back, is a symptom of grave significance; dyspnœa, frequently influenced by posture; wheezing and stridor, more or less distinctly marked, and peculiarly so with the expiration; cough of a paroxysmal character, peculiarly weak or else loud, ringing, and of a metallic quality; expectoration, which for a long time is simply catarrhal, or else consists of clear, gelatiniform mucus, which may subsequently become blood-tinged or more or less largely mixed with blood; palpitation; frequent attacks of giddiness and fainting; excessive restlessness during the day and want of sleep and slight wandering at night. Oftentimes the patient is able to obtain repose in one position only—the posture which happens, by force of gravity, to relieve the suffering organ from the pressure of the tumor. Thus, he sometimes sits erect in bed; or remains day and night in an arm-chair, afraid to go to bed; or, sitting erect, he may lean towards one side or the other; or he may lie down in bed comfortably on one side, though the least attempt to move on to the other will induce violent spasmodic cough and a sense of impending suffocation; or again, he may lean forward, with his elbows resting on his knees and his head supported by his hands. In addition to these symptoms, there may be inequality or entire absence of the pulse at one or both wrists, dysphagia, hæmatemesis, aphonia, distension of the superficial veins, and œdema of the trunk or limbs, according as the tumor presses on one organ or another, as was pointed out when the physical signs were under discussion.

There are four circumstances which will sometimes enable us to arrive approximately at a decision as to whether a tumor in the chest is aneurismal, malignant, or scrofulous. The first is the existence of aneurism or malignant, or scrofulous disease elsewhere in the body. The second is that when the tumor is aneurismal it is seldom accompanied by local inflammation, and that a murmur may be sometimes heard in a distant part of the chest, although none exists in the region of the heart; or a loud murmur may exist in both situations, but may be lost or almost inaudible at intermediate points.

The third is that the symptoms induced by the pressure of an aneurismal tumor are apt to be extremely variable. A diseased mass, whether malignant, scrofulous, or fibrous, having broad and firm adhesions in the chest—arising, that is, from a broad, extended surface, as such masses do almost invariably—would not be influenced by change of posture sufficiently to effect any material diminution in the amount of pressure, whether on the spine, the œsophagus, the bronchi, or other parts; whereas, an aneurismal tumor, arising, as it often does, from a narrow base, and attached only to a vessel which admits of considerable motion, may have its position altered considerably by gravity alone, so that the suffering organ may be relieved by change of posture, and the symptoms referable to pressure may be mitigated. The fourth is one to which attention was first directed by Dr. George Budd,* viz., that when the tumor is cancerous it is more apt than in the other cases to be accompanied by local symptoms of an inflammatoro nature, a circumstance which he explains by stating that malignant groths often involve the root of the lung and implicate or destroy the greater part of the nerves which supply such organ. The result is that the nutrition of the lung is interfered with and inflammation is set up, just as inflammatory destruction of the eyeball ensues after division of the fifth nerve within the cranium.

It is not difficult to distinguish intra thoracic tumors from the effect of phthisis, pneumonia, and pleurisy, though, in the absence of a careful physical examination of the chest, mistakes of this kind have been made Thus intra-thoracic tumors may produce modifications of the percussion sound, the respiratory sounds, and the vocal resonance, analogous to those which accompany phthisis; and may also give rise to râles and rhonchi, which are not distinguishable from those which are met with in that disease. But the probability is that in the former case the abnormal phenomena would be confined to one side of the chest, whereas in phthisis they almost always exist in both; that the course which the disease has run would not tally with that which phthisis ordinarily pursues; and that, in character and intensity, the general symptoms would not correspond with those which would be expected at the particular stage of the tubercular disorder which the physical signs would appear to indicate. The aphonia, which results from pressure on the recurrent nerve, may still further complicate the case, and cause it to simulate laryngeal phthisis; but the voice, though weak, or even whispering, will not be materially altered in tone, whereas, in laryngeal phthisis, it would not only be weak, but thoroughly hoarse, harsh, and altered in character. The only case in which any doubt ought to arise is when a mass of enlarged bronchial glands excites symptoms of pressure coincidently with the symptoms of phthisis, and even then the evidence of intra-thoracic pressure, interpreted through the agency of the tubercular disease in the lungs, ought to indicate the existence and the nature of the intra-thoracic tumor.

With regard to pneumonia, its whole course is so unlike that of an intra-thoracic tumor that there is no possibility of the two diseases being confounded, unless the patient being not seen until all active symptoms have subsided. Even then the absence of the wide-spread tubular breathing and increased vocal fremitus and vocal resonance which characterise pneumonia, and, on the other hand, the presence of intense dulness on percussion and of hæmoptysis and red, gelatiniform expectoration, together with enlargement of the side, and the existence of the signs resulting from the pressure and ulceration which usually accompany intra-thoracic tumors, ought to leave little doubt as to the true nature of the disorder.

The symptoms produced by chronic pleurisy, especially when it is circumscribed, are somewhat more perplexing, but ought to be unraveled without much difficulty. The intensity of the dulness on percussion may not vary greatly in the two cases, neither may the limits of the dulness be altered materially by change of posture, and in both cases the vocal fremitus and vocal resonance may be annihilated; but in chronic pleurisy the enlargement of the side will be uniform, the intercostal spaces will often be convex, fluctuation will be perceptible in them, and there will not be enlargement of the superficial veins of the chest or other signs referable to circumscribed pressure, whereas, in the case of intra-thoracic tumor, the side, if altered in form, will be irregularly enlarged, there will be no intercostal fluctuation, signs of circumscribed pressure will almost certainly present themselves, there will usually be found some spots within the area of dulness, where the percussion sound is not completely gone or where the hollow breathing sound is still to be heard, which could not well be if liquid were the cause of dulness, and there will often be hæmoptysis and red or colorless, gelatiniform, mucous expectoration.

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* Med.-Chir., Trans., vol. xlii.

Of course, if intra-thoracic tumor co-exists with chronic pleurisy, and the pleuritic effusion be on the same side as the tumor, the diagnosis is more difficult—the more so when the early history of the disease is wanting. But if the signs produced by pressure on the intra-thoracic organs are present, it is certain that some intra-thoracic tumor exists, and the probability will be that the pleurisy is a mere accidental complication, excited by the irritation of the tumor.

The causes and modes of death in these cases of intra-thoracic tumors are various. In most instances the patient lingers on, the sense of oppression and the distress of breathing gradually increasing, until at length the appetite fails, he becomes wretchedly thin and worn out by want of sleep, and, oppressed with anasarca, he sinks thoroughly exhausted. But sometimes he gradually succumbs in consequence of the interference with the respiration induced by pressure on the par vagum or on the phrenic nerve or on the pulmonary plexus, or by obstruction of the pulmonary artery; or he sinks rapidly from hemorrhage resulting from perforation of the pulmonary artery or one of the larger vessels, or, in the case of an aneurismal tumor, from the giving way of the aneurismal sac; or he is cut off by pneumonia, sometimes followed by gangrene resulting from pressnre of the morbid mass; or he dies suddenly from spasm of the glottis, induced by pressure on the recurrent nerve.

The treatment is necessarily of a palliative nature, and when the disease is far advanced our utmost efforts are of little avail, even to give temporary relief; but in the earlier stages much good may be effected by remedies calculated to tranquilize the circulation and regulate the secretions, as also by dry cupping, blisters, poultices, opiate and iodine lotions, and other local applications, which have the effect of subduing pain, relieving local inflammation, and producing absorption of the inflammatory matters which have been effused.

Boston Medical and Surgical Journal.—Dr. Jas. C. White has been associated with Dr. Abbot in the editorship of this excellent journal.

Permanganate of Potassa as a Deodorizer.—Dr. Pincus states tha the odor left on the hands after making autopsies may be immediately removed by means of permangamate of potassa.

Books Received.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By Gunning S. Bedford A. M., M. D. Third edition, carefully revised and enlarged. New York: Wm. Wood & Co. 1863. For sale by A. Roman & Co., 417 and 419 Montgomery street.

A THEORETICAL AND PRACTICAL TREATISE ON MIDWIFERY: including the Diseases of Pregnancy and Parturition, and the attentions required by the Child from Birth to the period of Weaning. By P. Cazeaux, Member of the Imperial Academy of Medicine, etc. Third American, translated from the Sixth French edition. By Wm. B. Bullock, M. D. Philadelphia: Lindsay & Blakiston. 1863. For sale by A. Roman & Co., Nos. 417 & 419 Montgomery street, San Francisco.

These two standard works on Midwifery shall receive our early attention.

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HEALTH OF SAN FRANCISCO.—There were 192 interments during the month of March—being 41 more than for the previous month. 114 were buried in the Lone Mountain, of which 15 were under three years; 71 in the Roman Catholic, of which 20 were under three years, and 7 in the Jewish Cemeteries.

The principal causes of death are recorded as follow: Consumption, 27; Diseases of the Heart, 5; Inflammation of the Lungs, 6; Typhoid and Typhus Fevers, 5; Erysipelas, 2; Dysentery, 1; Apoplexy, 3; Dropsy, 2; Paralysis, 3; Brain Diseases, 2; Croup, 1; Dentition, 1; Convulsions, 1; Marasmus, 1; Cancer, 1; Suicides, 2; Still-born, 10, etc.

WE would call the attention of the Profession to the Card of J. Charriere, of Paris, which appears in our advertising pages. It will be seen that Mr. H. P. Wakelee, Druggist, Montgomery street, has been appointed sole agent for California for the sale of all the instruments manufactured by M. Charriere. Mr. Wakelee will be happy to supply complete catalogues, containing explanations in detail, to such of our professional friends as may be desirous of purchasing.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Wasting Palsy—Paralysis of Bell and Cruveilhier.

The confusion arising from the various names assigned to this form of paralysis is very great. Dr. Roberts, in his excellent monograph,* adopts the term wasting palsy, as short and convenient, and expressing its most remarkable feature; at the same time suggesting that it should be called by the name of Cruveilhier; but it would appear that that of Sir Charles Bell should, in justice, be added. As in the previous cases, the attempts to name the disease by its clinical or pathological characters, have been quite unsuccessful, the features that were used for the purpose having been proved by increased experience not to be constantly present. Thus Aran calls it "atrophie musculaire progressive," and Duchenne "atrophie musculaire avec transformation graisseuse," and Sandahl combines both characters in his name, calling it "atrophia muscularis paralysans, adiposa, progressiva," a name rather inconvenient for common use, in addition to its being inappropriate, from its now being well established that, though the muscles generally undergo fatty degeneration, there are cases in which there is no transformation into fat, and that the atrophy is not necessarily progressive.

In this Journal, and in the *Dublin Hospital Gazette*, cases presenting some points of importance have been published by Dr. Reade and Dr. Banks, proving, amongst other things, that the disease is not always progressive. Dr. Reade's † was that of a young man, nineteen years of age, who had been suffering from the disease for eighteen months. When he stripped his body to the waist, he exhibited neck, chest, and arms, to the elbow-joints, reduced to a most abject degree of emaciation, such as is seen pervading the whole frame of those who have undergone wasting disease. The emaciation—the decadence of muscular fibre together with the tegumentary covering—was perfectly symmetrical, muscle for muscle, on each side of the median line, both on the anterior and posterior aspect of the trunk; the greater and lesser pectoral muscles were little more dense than the strongest brown wrapping paper; the muscles of the neck, anterior and posterior, proportionately attenuated; the muscles on the scapulæ, particularly the supra and infra-spinal muscles, were so much diminished as to show the spine of the bone, with distinctness only less than the dry bone; all prominences from the deltoids were gone, and the muscles of the humeri were reduced to the cellular membrane, the mere elementary outline of the muscles, the biceps and triceps especially; from the elbows, the muscles of the fore-arms and hands displayed the full development of a robust and vigorous man of his stature, with all the concomitant power, sensibility and aptitude for use. All the muscles outside the pelvis, and those of the inferior extremities, were full, strong and well-formed.

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* Reviewed in Dublin Quarterly Journal of Medicine, vol. xxvi, p. 101.

† Dublin Quar. Jour. of Med., vol. xxii, p. 393.

His history was this: Within the period of eighteen months he was in all respects, as regards the muscles of his neck, trunk and arms, in due proportion with the fore-arms and lower limbs, and he was distinguished among his companions in all athletic exercises. The first sign of his approaching malady, which he perceived, was a degree of stiffness or difficulty of executing the motion of putting on or removing his hat from his head. He never suffered pain, and has enjoyed uninterrupted health, his digestive functions being performed with perfect regularity.

Dr. Reade treated him by counter irritation over the cervical vertebræ, put a seton in the back of his neck, and gave him mercury in small but long-continued doses, keeping him under its sensible action for three months. He subsequently made him use dumb-bells, to excite nutrition by the stimulus of gymnastic exercises, and used electro-magnetism for several weeks. Under this treatment he recovered flesh and substance on the scapulæ, and especially the spinati muscles, but afterwards thought his strength diminished; and after about two years the treatment was discontinued. At the expiration of six years, Dr. Reade again saw him, and gives the following account of him: "The change in his appearance is most decided, and altogether on the side of improvement. The most marked amendment which strikes the eye is the fair amount of adipose substance which has been restored over the whole of the emaciated surface of the chest, back, neck and arms; he might be said to be in good condition; formerly the ribs were all prominent, and the conical form of the chest was as apparent as in the skeleton, from the disappearance of the pectoral muscles and the excessive thinness of the tegumentary covering; over the back of the humerus the integuments fell in a loose fold; the muscles of the neck have all been fully restored; the muscles of the scapulæ considerably augmented; the deltoids in a small degree, but the fibre feels tense and very firm; the triceps and biceps are little better than membrane, but possess true muscular action, perfectly obedient to the will. The muscles of the forearms have lost much of the bulk they had six years ago; the hand has become attenuated; this may be accounted for by his occupation, viz., a sedentary and mental pursuit for six years. He reports himself as possessing at present, and during the whole progress of this extraordinary disease, the most uninterrupted good health, his digestive functions being performed with invariable regularity; and never, from its commencement up to the present time, had he the least pain pending the degeneration of the muscles. . . . His present exercise is pulling an oar in a boat on the sea. It is here established that the symmetrical atrophy may undergo arrest, may even renew the vital action of nutrition to the renovation of the decayed muscle."

Of Dr. Banks's cases,* one had been the subject of the disease for five years: it began in the right arm with pains, thought to be rheumatic, after exposure to damp and cold and much continuous work at shoemaking. The fingers first became weak, then the wrists, accompanied with cramps and convulsive twitchings of the muscles; the disease extended to the forearm, and, after some months, the left had became affected in precisely the same manner, the thumb being the first part implicated, and then the muscles of the forearm, with loss of substance. The muscles of the back of the neck and of the shoulders were subsequently implicated, those of the lower extremities were unaffected; the man was active and a good walker. The affected joints were generally very cold, livid, and moist; but there was at times a marked elevation of temperature, their sensitiveness to impressions of cold was very remarkable; and, as the disease was commencing, the muscles were always more feeble in a cold than in a warm atmosphere. The function of sensation was unimpaired. During a residence of three months in the hospital, he was subjected to electro magnetism, and a tonic treatment was at the same time employed. Some improvement appeared, particularly in the flexors, which became slightly increased in bulk, and the disease, which had progressed for two years, was arrested, no new set of muscles becoming affected.

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* Dublin Hospital Gazette, vol. vii, p. 226.

The second case recorded by Dr. Banks is that of a gentleman, 64 years of age, in whom the disease set in after a fall received twenty-four years ago, in hunting, when he was slightly stunned, but soon recovered. The left leg was first affected, then the right wrist, and next the left, but not so completely as the right. The disease progressed for about one year, when its onward course was stayed. The general health was good, and the intelligence far above that of ordinary persons.

The pathology of the paralysis of Bell and Cruveihier is the subject of much discussion. Cruveihier attributed the disease to atrophy of the anterior roots of the spinal nerves, but subsequent researches have not confirmed this view. Many pathologists regard it as a true acinesis, or disease of the muscles themselves, and Dr. Roberts has examined into the evidence, and pronounced a verdict in favor of this view of its nature. He collected the particulars of all the cases that had been recorded at the time of his writing (1858), and analyzed them.

The alterations found in the nervous system were by no means constant. The brain and medulla oblongata were free feom disease in every case examined. In 9 out of 13 autopsies, the spinal cord was sound; in some, even the microscope failing to reveal anything abnormal. Of the 4 in which morbid states were discovered, there was amyloid degeneration. Great importance attaches to the condition of the anterior spinal roots, in consequence of Cruveilhier's observations. In his two cases he found them atrophied, Schneevoogt and Valentiner found them in the same state in one case each, along with softening of the cord; and Dr. Roberts quotes from Dr. Reade's very excellent description, published in this journal for November, 1856, of the case that occurred in his practice, an allusion to a case that was examined in the Belfast workhouse, as the only further confirmation of Cruveilhier's observation. On the other hand, it appears that in five cases in which this alteration was specially looked for, it did not appear. These are detailed by Dr. Meryon, in the *Medico Chirurgical Transactions;* by Landry, in the *Gazette Medicale;* by Oppenheimer, in the same; by Virchow, in *Virchow's Archiv.;* and by Laboulbene, in *L'Union Medicale.* The existence of these five case we believe, with Dr. Roberts, to be a fact of capital importance in the discussion of the pathology of wasting palsy.

In 6 cases the peripheral nerves were examined; in 3 the motor nerves were more or less atrophied, probably a secondary change. In 2 no change was found. In 2 the sympathetic in the neck was examined; in one Landry could discover nothing abnormal; in the other, Schneevoogt found that part of the cord in the neck, the lower cervical and some of the thoracic ganglia, had undergone fatty degeneration, a condition that had been diagnosticated during life from the contraction of the pupil.

"To the muscles themselves, therefore," Dr. Roberts says, "we must look for the primordial phenomena of wasting palsy. This opinion is held by Duchenne, Aran, Oppenheimer, Wachsmuth, and Dr. Meryon. Of the nature of the blight that withers the muscles, he is only able to say, with Dr. Meryon, that it is a fatty and granular degeneration of the muscular fibre, similar (often at least) in its anatomical bearings to what is observed in fatty heart, or in muscles which have degenerated from section of their nerves. There would seem to be an error of nutrition in the muscular fibre, not dependent, as Dr. Meryon thought, on a general depression of the nutritive functions—these being almost almost always in their highest perfection—but brought about under the influence of a peculiar constitutional predisposition or diathesis, by the aid of one or more of the special exciting causes.

"That the entirety of the disease is not comprehended in its local manifestations, and that a constitutional predisposition lies behind these, is made evident by the transmissibility of the disease from parent to offspring; and also by the total inadequacy of the exciting causes, acting alone, to produce the series of events which characterize wasting palsy. An additional proof is seen in the bilateral symmetry of its march. This symmetry, although by no means constant, or always exact, is quite as remarkable as anything presented by pulmonary tubercle, articular rheumatism, or syphilitic or other eruptions of the skin."

But new evidence has recently appeared, making it necessary that judgment should be suspended. Mr. J. Lockhart Clarke, who is so distinguished for his investigations into the minute structure of the spinal cord,* and who has discovered new methods of making microscopic sections of it, has found in two cases disease of the ganglionic corpuscles in this centre, that may possibly be no more than a consequence or an accidental associate of it. His first case was a well-masked one of the disease, in a man aged 65, who had suffered from it for five years. At the autopsy no important morbid change was apparent, except some undue subarachnoid effusion and some granular alteration of the wasted muscles; but on microscopic examination, Mr. Clarke detected, in the posterior grey substance of the cord, some unnaturally transparent streaks, patches or spots occupied by a granular substance. These spots appeared to be most numerous about the middle of the cervical enlargement, and diminished upwards and downwards. In one of them a vacant space was found, with broken ends of nerve fibres projecting into opposite sides of the space. Around the central canal of the cord and the medulla oblongata, and in the anterior and posterior spinal commissures, there was a considerable deposit of *corpora amylacea*. The floor of the fourth ventricle was covered with minute granular elevations, consisting of aggregations of the ordinary epithelial cells.†

In another case, in which the disease began in the left hand, and extended gradually, till it affected all parts of the body except the face, Mr. Clarke found very similar appearances. In this case the whole cord was atrophied—there was no brachial enlargement whatever. The nerve cells were found to be in a singular state of atrophy, without nuclei or distinct granular contents. The central canal was about its normal size; but the epithelium around it was increased or hypertrophied. There were no corpora amylacea found, but the connective tissue throughout the cord, and particularly between the fibres, was unnaturally abundant; and the increase of it, with the atrophy of the white fibres, caused considerable displacement of the parts of the cord. There was no examination made of the paralyzed muscles.‡

Dr. Gull, of Guy's Hospital, has recorded a case which is remarkable for the slight degree of the affection, and the great amount of morbid condition found in the cord. The patient, aged 44, was a journeyman tailor, of sober habits, and always healthy and strong, and had never met with any injury. He was admitted into Guy's Hospital on the 5th of February, 1862. Thirteen months before this, the fourth and ring fingers of the right hand became weak and flexed, without any assignable cause. The hand was cold, and there was a feeling of numbness in the fingers, but no pain, and he continued working at his trade. Two months before admission the middle finger of the same hand became suddenly affected, and three weeks before admission the three fingers of the left hand became weak and flexed, but without numbness. The arms were not affected. The interosseous muscles, and those of the thenar and hypothenar eminences, almost completely disappeared, especially in the right hand. The patient died from typhus fever on the eighth of March. On examination, a large cavity was found in the cervical region of the cord, beginning at the fifth nerve, enlarging from that to the seventh, and then tapering downwards, and containing fluid. A chronic cervical *hydromyelus*, comparable to a chronic *hydrocephalus*. What the nature of the change in the cord was, Dr. Gull says, may be a matter for speculation. So far as it affected the grey matter, it seemed to be no more than atrophy, from distension of the ventricle of the cord, by an accumulation of fluid in it.[†]

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* For abstracts of Lockhart Clarke's papers, see Dublin Quarterly Journal of Medicine, vol. xxix, d. 117, and vol. xxx, p. 464.

† Arch. of Med., Oct., 1861.

‡ British and Foreign Med.-Chir. Review, July, 1862, p. 215.

It is difficult to believe that the condition of the cord in this case was anything more than a coincidence; but on reviewing the whole subject, we must, for the present, say with Dr. Gull, that the disease may arise from primary disease of the muscular elements—or from lesion of the trunks or branches of nerves—or from morbid changes in the grey matter of the cord; and it is the difficulty of distinguishing the primary seat of the disease in each of these classes of cases, which has led to exclusive, and therefore erroneous views of their pathology.—*Dublin Quarterly Jour. of Medicine.*

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[*] Guy's Hospital Reports, vol. vii, 1862, p. 245.

Progress of Medical Science.

PREPARED BY E. H. JANES, M. D.

NINE CASES OF PLACENTA PRÆVIA

ARE reported to the British Medical Association by George Rigden, Esq., Canterbury. Statistics show these cases to be rare, and but few fall to the lot of any one practitioner. In 75,596 cases of midwifery recorded by nineteen observers, 182, or about one in 420, were cases of placenta prævia. Naegele ascertained by means of the stethoscope that of 600 cases of impregnation, the placenta was attached to the os uteri in 11, or about one in 55 cases. This will probably account for the many miscarriages that occur about the fifth or sixth month, and which are probably due to this position of the placenta. According to Churchill, in 182 cases of placenta prævia, the result to the mother was fatal in 51, or about one in three; and it is very rarely that a child can be saved. Of these nine cases, the first, a woman aged about 40, and the mother of several children, had been flooding at intervals for more than a month past. The placenta was found attached completely over the os uteri, and so thin that the head was distinctly felt in the natural position through the substance; it was therefore punctured with the finger, and the head immediately descended through the aperture, and the case quickly terminated by the natural efforts. The child was still-born, the mother made a good recovery. The second was a primipara, aged rather more than 20, and about eight months advanced. Flooding had occurred at intervals for several weeks past. Placenta completely over the os. Was delivered by turning. The child was still-born. The mother died of subacute peritonitis. The third, a multipara aged about 40, had been subject to flooding for several weeks. The placenta did not quite cover the os. Delivered by turning, the child still-born, the mother recovered with some paralysis of one leg that lasted for several months. The fourth a multipara aged 30, had flooded for a few days. Placenta implanted over the os, and partially obtruding. It was at once removed, when the child was found to present by the shoulder, and was at once delivered by turning. The child was still-born, but the mother made a good recovery. The fifth, a primipara aged 20; the placenta partially protruded, it was seized, and delivery at once effected. The child was living, but being premature and weakly, it soon died; the mother made a good recovery. The sixth, a multipara aged about 40, and about the seventh month of utero-gestation; had suffered from intermittent floodings. Upon the occurrence of labor, the placenta was entirely over the os. It was partially separated from the side, and the child, delivered by turning, was still-born, and the mother made a good recovery. The seventh was a primipara, aged rather more than 30, had arrived at full term of pregnancy. Flooding had occurred at intervals for some weeks. Placenta entirely over the os. It was detached and removed, and the flooding ceased or lessened; but the pains not being sufficient to expel the child, it was removed by turning. It was still-born, the mother recovered. The eighth, a multipara aged about 40, was in the seventh month of pregnancy. The placenta presented, the child was delivered by turning, lived several weeks, and the mother did well. The ninth, a multipara aged 35. Placenta entirely over the os, child, delivered by turning, was still-born, the mother made a good recovery. The author's concluding opinion is that, "in those cases in which the placenta is partially protruded through the os uteri, and consequently offering but little difficulty in its separation, we are justified in removing it before the child; but since in all cases it is of the greatest importance to effect the delivery as soon as the os will permit, and before the power of the mother becomes exhausted, the delivery of the child is of greater importance than the delivery of the placenta, and, therefore, should in the greater number of cases be effected."

BELLADONNA AND ATROPIA

Are, according to the *Medical Times and Gazette*, in favor at the Hospital for the Epileptic and Paralysed, as remedies for epilepsy. Under these remedies the patients are benefitted, and though many cases are not cured, the number of fits is often diminished, and the patient's general condition much improved. Many who have suffered for years are rendered capable of resuming a comparatively active life. The prescription generally used is extract of belladonna a quarter of a grain, quinine one grain, in a pill three times a day. Of atropine, the 1-120th of a grain is given three times a day. Both are gradually increased in dose, yet the only physiological effects observed are dryness of the throat and defective vision. The latter is in consequence of the ciliary muscle being partially or totally paralysed, by which the power of accommodation is impaired or altogether lost. One method of Dr. Brown-Sequard is, to eject a solution of atropine and morphia into a part from which an aura starts. A solution containing 1-60th of a grain of atropine and 1-4th of a grain of morphia is injected with Wood's syringe, sometimes with excellent results. He believes that belladonna and ergot both act by producing contraction on the blood-vessels; the former on those of the brain, the latter on those of the spinal cord. In paraplegia from myelitis, he gives a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna, three times a day. The action of belladonna in arresting the secretion of milk, and causing dryness of the throat, may be explained on the hypothesis of its diminishing the supply of blood to those parts.

OPIUM, CODEIN, ETC., IN SLEEPLESSNESS.

Instead of profuse administration of opium in delirium tremens, it is recommended to support the patient with tonics, stimulants, and nutrients; and when strong enough to bear it, opium may be given. Dr. Brown-Sequard sometimes gives codein to produce sleep. It is not followed by the disagreeable effects which sometimes follow the administration of morphia. The dose in a case reported was two-thirds of a grain, in pill. The amount of codein in opium is from 1-30th to 1-16th of that of morphia. At the Middlesex Hospital, Dr. Goodfellow employs subcutaneous injection of opium in order to get the patient asleep in delirium tremens. He thinks that it acts more quickly and produces less constitutionaldisturbance than when administered by the mouth.

POISONING WITH STRYCHNIA.

The Paris correspondent of the London *Medical Times and Gazette,* after giving some account of M. Gallard's researches on strychnia poisoning, thus concludes: "Morphia and coneine have, in the hands of M. Gallard, not justified the hopes that were entertained of these substances. On the contrary, they have rather accelerated than retarded the death of those animals to which he administered as antidotes to strychnia. Atropine and inhalations of chloroform have also proved useless; and the only substance which seemed to have any beneficial effect was aconitine. An animal which had taken a dose of strychnia sufficient to kill it within ten or eleven minutes, survived two hours, and died at last with symptoms of poisoning by aconitine. Another animal, to which a small dose of the latter poison had been given, recovered perfectly after half an hour; three days after, in order to have an *experimentum crucis,* the same animal was given the same dose of strychnia, after which it died in seventeen minutes. A third animal, however, which was poisoned with 2½ milligrammes of strychnia, died after seven minutes, in spite of the immediate administration of half a milligramme of aconitine, so that the latter cannot be considered as unfailing antidote to the former."

THE USE OF MEDICATED PESSARIES

Is advocated in a paper read before the Obstetrical Society of London, by Dr. T. H. Tanner. In cases of uterine disease, to which medicated pessaries are adapted, a very convenient material for holding the drugs together is found in the butter obtained from the theobroma cacao nut, instead of wax or lard. When cold it has the consistence of wax, and may be readily applied by the patient herself, after which, from the warmth of the vagina it soon becomes liquid. The following formulæ are recommended:—Mercurial ointment, four scruples; ext. belladonna, one scruple; cacao butter, four drachms; olive oil, one drachm. Mix; divide into four pessaries, and order one to be introduced into the vagina every night. Iodide of potassium, one drachm; extract of conium, four scruples; cacao butter, four drachms; glycerine, one drachm. Mix; divide into four pesseries.—*American Medical Times.*

SURGEON-GENERAL OF NEW YORK.—Gov. Seymour has appointed Dr. V. P. Quackenbush of Albany, Surgeon-General of New York.

On the Application of Remedies to the Larynx with the Aid of the Laryngoscope.

BY MORRELL MACKENZIE, M. B., LONDON,
Registrar to the London Hospital.

THE laryngoscope has now firmly taken its stand as an indispensable instrument in the diagnosis of throat affections. The brilliant demonstrations of Professor Czermak so completely captivated the professional mind, that a method of investigating disease which till quite recently—in this country at least—was regarded as the dream of enthusiastic theorists, is now admitted to be at once practicable in its application, and positive in its results. At this moment, indeed, it cannot be denied that, though there are scientific instruments of more extensive sphere, there are none by which evidence can be obtained of so accurate and conclusive a kind.

The beautiful simplicity effected by Professor Czermak in the details of the laryngoscope secured the future position of the instrument which his attractive demonstrations had brought so prominent before the medical public, and though the merit of the invention has been recently claimed by our own talented countryman, the late Mr. Avery, in this instance, it must be admitted that "he discovers that proves. Honor belongs to the first suggestion of a discovery, if that suggestion was the means of setting some one to work to verify it; but the world must ever look upon this last operation as the crowning exploit."

The obstinacy of internal diseases is a striking contrast to the comparative tractibility of peripheral affections, (from the report recently published by the Statistical Society "On the Mortality occurring in the Metropolitan Hospitals," it will be seen that whilst the death-rate in the surgical wards was only 5·6 per cent., that in the medical wards—i. e., that of internal disease—was 12·9 per cent.,) and it is highly satisfactory to find that the progress of medical knowledge is likely to transfer laryngeal affections from the category of the former to that of the latter. As yet, however, the laryngoscope has more often testified to past ravages than prevented prospective destruction. This is partly owing to the instrument having been only so recently introduced, and partly because a sufficiently simple mode of applying remedies has not hitherto been made known. The object of the present article is to explain a method at once easy and efficacious. It consists in using the left hand for the larnygeal mirror, and then with the right hand quickly introducing the "laryngeal probang."

This instrument is simply a piece of bent aluminium wire, one-eighth of an inch in thickness, fitted into a tolerably-sized handle, and armed with a sponge, which must be firmly attached. The sponge may extend any length up the wire, but it must only just cover it at the end (on account of the danger of particles becoming separated and dropping into the trachea), and it should not be more than a quarter of an inch in thickness. The wire should be bent at an angle of 108°; the lower part to which the sponge is attached should measure an inch and a quarter in length, and the upper part, which is inserted into a stout wooden handle, should be about five inches long. The angle, however, at which the wire is bent—viz., 108°—is the "moment" in the whole affair. It was arrived at by measurements made on the dead subject, and by a great number of trials on different-sized throats, with probangs bent at every inclination. When Professor Czermak was in London he used an instrument provided with a large curve, instead of one bent at an angle; but the curve makes it extremely difficult to use the instrument, which, owing to its shape, instead of being plunged directly into the larynx, has to be slided gradually to the back of the throat; and when the operator has got thus far, the large curve in the wire causes an immense alteration in the position of the point of the instrument when motor power is applied at the handle. For touching the vocal cords near the anterior insertion, the wire may be conveniently bent at an angle of 90°; and for applying remedies to mucous membrane over the arytenoid cartilages, an angle of 120° is suitable.

Nevertheless, the instrument already described is more easy to introduce below the epiglottis than where the angle is either greater or less; and by raising or depressing the handle, the deeper or more superficial parts of the larynx can be effectually touched. If it is only desired to swab the larynx or touch the under surface of the epiglottis, a stouter instrument, shorter below the angle, may be conveniently used. Aluminium is recommended as the metal best suited, both because it entirely resists the action of all remedies that can be applied to the larnyx, and because its extreme lightness renders it admirably adapted for the rapid and delicate movements which are required. The only point to be borne in mind is that, of course, all objects are reversed in the mirror; but when the anatomical situation of parts is remembered, with a little practice this difficulty will be soon overcome.

Professor Czermak has recommended a method of injections which, though very ingenious, is far from simple. The laryngeal mirror has to be held by "a fixateur," and hollow tubes are used for injecting. To insure accuracy, "a sight is attached to the tube," and even then "constant practice can alone give security in aiming and touching; and it is indispensable to examine beforehand each tube separately, in order to know the manner of employment." For practice in the "tir," the persevering Professor recommends larnygoscopic drawings fitted into a case of the same size as the pharynx. This he illumines, and, after aiming, is able to ascertain "what accuracy of localization may be obtained." This plan of treatment may be suited for the marksman, but it is not easy for the ordinary volunteer.

The observations which preceded the immediate subject of this paper are the best proof that these quotations are not made in a spirit depreciatory of the distinguished Prague Professor, but are merely intended to impress that simplicity, which, though itself a negative quality, is the real basis of all rational therapeutics.—*London Lancet.*

Foreign Intelligence.

THE University of Jena has experienced a great loss within a few days. Prof. Lehmann, the renowned chemist, and one of the first authorities in his speciality of physiological chemistry, died on the 6th of January, while yet in the prime af life. He had only been connected with the University eight or nine years, and was highly esteemed, both as a lecturer and practical instructor.

Among the seven physicians who, on the 29th of December received the Monthyon Prize of the French Academy of Sciences, were Professors Lebert and Frerichs.

The *Weiner Med. Zeitung* reported a case some months ago, in which a portion of the pancreas was voided through the intestine and found in the fæces. Contrary to all expectation, the patient has completely recovered within the last fortnight, and is about to return home.

Oppolzer has acceded to the request of the Vienna students that his bust should be executed in marble.

Prof. Hebra has been elected corresponding member of the Belgian Royal Academy of Medicine.

The *Presse Med. Belge* gives two cases, in which Laugier had employed baths of oxygen gas in senile gangrene with the most favorable result. He inserts the affected part in an ox-bladder, which is connected by a stop cock and flexible tube with an oxygen apparatus. The bath is used an hour daily. In one of these cases, that of a man 76 years old, with a slough upon the great toe, and several livid and painful spots upon the other toes and the back of the foot, the severe pains disappeared after the employment of the bath five days, the affected portions assumed a natural appearance and the sensibility returned. Subsequently the slough fell off, the wound healed quickly, and the patient completely recovered.

Professor Jager, the distinguished oculist, of Vienna, celebrated on the 12th December his 50th ' Doctorjubilaum." The Royal Danish Society of Physicians elected him, the first foreigner, an honorary member.

One of the daily papers in Paris lately announced that Trousseau had been called in consultation to Garibaldi in Italy. The result of this false report was that the well-filled consulting room of this popular physician became at once empty, so that he was obliged to contradict the statements in the public journals. This unlooked-for honor cost the Professor nearly $1,000.

At a recent session of the k k. Gesellschaft der Aerzte, Prof. Pillwax stated that canine rabies, lately very prevalent in Vienna, had considerably decreased. The number of dogs affected in all was 33, of which 6 had raving, the others quiet mania. In this century the disease had been four times epizootic: first in 1814-15, secondly in 1838, '39, '40 and '41, the third time in 1848, and lastly in the present year. In 1841, 145 cases occurred, an unusually high number. Thirteen persons only were bitten by the above 33 dogs. With regard to the contagiousness, experiments in inoculation had proved that both the saliva and blood of affected dogs are contagious, and to such an extent that the saliva of the bitten dog may produce the disease in another by inoculation. Professor Pillwax is of the opinion that a peculiar specific contagion in the atmosphere produces the disease, though many deny the existence of this contagion, and believe that it is only transmitted by biting. He had inoculated three dogs with the saliva and blood of the boy who had recently died of hydrophobia in the Hospital, which were still under observation, but as yet had exhibited no signs of rabies.

At another meeting of the same Society, Dr. Neumann spoke of the symptoms produced by the application of tar to the external skin, viz., oppression at the stomach, vomiting of a black fluid and discharge of black fæcal masses, and, when a third of the body has been tarred over, of dark urine smelling of tar. After repeated applications, however, or when applied to persons who have lain for a long time in Professor Hebra's "continual bath," scarcely a trace of coloring is visible in the urine. After a long-continued use of the tar, a so-called tar-acne is often produced, which differs from common acne only in the dark color of the opening of the follicle. Dr. N. applied beech-tar to the healthy skin, and carefully followed the eruption from its beginning to its highest development, the acne pustule. It has been observed that persons who inhale for a long time atmosphere impregnated with tar, are affected with a similar eruption. He exhibited two laborers from a tar-factory upon whose lower extremities an abundant acne efflorescence was visible. Workmen even in manufactories where tar is used to smear the machines are affected with an acne eruption.—*Boston Medical Journal.*

Parisian Medical Intelligence.

M. Boudin, the declared enemy of the in-and-in breeding system, has recently addressed to the Academy a further communication on this subject. He maintains that although in some cases the ill-effects of consanguineous marriages are not observed in the generation which immediately succeeds them, they appear in the next generation, and he adduces two observations which confirm his views. In one of these cases, that of a druggist living in the Haute Marne, who married a German lady, (the issue of a marriage between cousins,) out of four children, three were imperfect. One was humpbacked, a second deaf-mute, and a third idiotic; these defects being due, as M. Boudin asserts, to the indirect hereditary influence on the mother's side.

The second case is that of the mayor of a town in the department of Dordogne, who married the daughter of his first cousin. A son ond daughter, both in the enjoyment of good health, resulted from the union. The daughter married a healthy young man, at twenty years of age, and gave birth to a child afflicted with congenital deafness, an affection hitherto unknown in either family. The question is, however, warmly contested in France, not only by the Jewish community, but also by many of the non-Israelite statisticians, as more than one district exists in the empire in which the rule of first-cousin alliances exists, and no deaf-mutism or other congenital defect prevails.

Typhoid Fever, which for three months past has been very prevalent in Paris and the environs, is fast disappearing; but chest affections are still very common, as also an obstinate form of spasmodic cough, in adults, narrowly resembling the whooping-cough, minus the whoop.

Dr. Wahn, a French medical man, actually chief of the Nice military hospital staff, recommends the free application of the tincture of perchloride of iron in cases of ulceration from ingrowing toe-nails. The action of the salt upon the skin and superficial tissues is analogous to that of tannin upon a fresh hide. The previously painful ulcer is converted into a hard and insensible substance, capable of resisting the cutting action of the sharp edge of the nail.

General Morin, a weighty authority on the subject of ventilation, has just read to the Academy of Sciences a paper on the renewal of air in lecture-rooms and amphitheatres. In this communication the author alludes to the inconveniences which may arise from the introduction of streams of fresh air at a low temperature in the immediate vicinity of seats occupied by the audience, and suggests the establishment of a mixing chamber, "chambre de melange," in which the air admitted from without shall be previously combined with hot air, before passing into the amphitheatre for which it is destined. General Morin intends to turn to account the gas used for lighting theatres and public-rooms, for the purpose of raising the atmospheric temperature of the mixing chamber. By his system, each individual of the public frequenting theatres, &c., will be supplied with twenty-five cubic metres per hour of fresh air, at an unvarying temperature.—*London Lancet.*

Teething.—During ten years ending 1860, the deaths of no fewer than 6703 children, were registered as having arisen from this cause in London. During the year 1862, the deaths from the same cause numbered 761.—*London Lancet.*

New Methods of Discovering the Presence of a Ball or other Metallic Body within a Wound.

NELATON'S PORCELAIN PROBE—FAVRE'S GALVANIC PROBE.

THE difficulties which have attended the diagnosis of General Garibaldi's wound, and the contradictions of surgical opinion, have had the good effect of stimulating ingenuity for the devising of new and more certain methods of physical exploration. It will be recollected that the positive opinion of the presence of the ball in Garibaldi's wound given by M. Nelaton was based upon the dull character of the sound elicited when the probe struck against the hard substance at the bottom, which was very different in his experience from the clear sound emitted from a piece of necrosed bone under similar circumstances, and also upon the sensation imparted to the hand, which bore no resemblance to that imparted by the rough surface of the carious bone. On his return to Paris, he devised, in conjunction with M. Em. Rousseau, a contrivance by which a portion of the ball might actually be brought away, so as to convince those who differed from him in opinion. This instrument consisted of a probe, furnished at the extremity with a little sphere of unglazed porcelain or biscuit-ware, about the size of a small pea. On bringing this sphere in contact with a leaden ball, and exercising a little rotary friction, it acquires a stain of the metal, which subsequent contact with the soft parts and morbid secretions fails to remove. There is this additional advantage, that the portion of metal thus removed may be dissolved off and made the subject of chemical tests. It was by the use of this little instrument that Dr. Zanetti convinced himself of the presence of the ball with sufficient certainty to lead to a determination to extract it. The credit of another contrivance, more complicated but not less ingenious, is due to the fertile brain of M. Favre, Professor of Chemistry to the Faculty of Sciences of Marseilles. The principle involved is the different conducting power for electricity between a metallic substance, on the one hand, and the fluids and tissues of the body, on the other. Thus it happens, that if the conducting wire of a feeble metallic body be interposed, on the completion of the circuit the needle will be strongly deflected. This would not be the case on interposing the ordinary tissues of the body. With the assistance of M. Favre, Dr. Fontan, a military surgeon at Marseilles, has made experiments to test the efficiency of the plan proposed by the former. The apparatus used was as follows: 1. A Smee's battery of a single pair of plates, so feeble as to be unable to produce any sensible amount of electrolysis with the animal tissues. 2. A galvanometer. 3. A probe, formed in the following manner: it consists of two parts, one of which is received into the other, which forms thus an outer casing. The internal portion, or galvanic portion, is a straight metallic probe, through the length of which pass, packed in silk, two metallic wires, each terminating in a steel needle, and isolated and firmly fixed beyond the extremity of the probe by means of a little cone of ivory. These wires are intended to conduct the galvanic current, the galvanometer being placed in the course of the intended circuit. For this inner probe there is provided an external metallic casing, so constructed as to permit the galvanic probe to be slid within it, and perforated at its extremity with two holes, through which the needle-points of the conducting wires can be protruded. There are various little arrangements of grooves, slits, and a screw to insure accuracy of adaptation between the galvanic probe and its case. In using the instrument, the internal probe is retracted and fixed by the little screw, and the instrument is then employed in the ordinary way as a probe. On the solid substance being arrived at, the screw is loosened, the needle-points protruded and brought into contact with it by sliding down the internal probe. If the substance be metallic the circuit is established, and the galvanometer deflected. The first experiments were made with wires unprovided with needle-points, the addition of which was found essential to success, inasmuch as they readily penetrated any soft tissues or adventitous substances, etc. The use of a little friction with the point of the sound, or a gentle percussion upon it, never failed to establish the galvanic current. M. Fontan suggests that, by modification of this probe, the principle involved might be applied to other purposes of diagnosis, as where the presence of metallic bodies in the canals or mucous cavities of the body was to be detected.—*Med. Times and Gaz.*, Dec. 13, 1862.

Recently introduced Preparations of Iron.

MR. HARRY NAPIER DRAPER, gives (*Dublin Med. Press*, Dec. 31, 1862,) the following account of three recently introduced preparations of iron;—

1. *Ferri et Quiniæ Strychniæque Citras.* Citrate of quinia and iron with strychnia.

Preparation.—	Citrate of iron and quinia	980 grs.
	Crystallized strychnia	10 "
	Citric acid	10 "
	Water	10 fluidounces.

In nine ounces of water dissolve the citrate of iron and quinia, and having dissolved the strychnia and citric acid in the remaining ounce by boiling, mix the solutions, evaporate to a syrupy consistence, and spread on plates to dry in scales.

Physical characters.—Exactly similar in appearance to the citrate of iron and quinia. Its taste is, however, more persistently bitter than that of this salt.

Chemistry.—This compound contains in each 100 parts, one part of strychnia, twenty parts of quinia, and seventy-nine of citrate of iron. The presence of strychnia may be detected in the residue from the evaporation of the chloroformic solution of the alkaloids by the usual colour tests.

Physiological action and therapeutical use.—Where the use of iron is not contraindicted, this salt and the one next to be described, furnish perhaps the safest, if not the best, means of exhibiting strychnia. Five grains contain one twentieth of a grain of strychnia.

Dose.—From two to five grains.

2. *Ferri et Strychniæ Citras.* Citrate of iron and strychnia.

Preparation.—	Citrate of iron	980 grs.
	Strychnia	10 "
	Citric acid	10 "

Proceed as in the case of the preceeding preparation.

Physical characters. — Indistinguishable in appearance from the simple citrate of iron. Taste: acid, ferruginous, and persistently bitter; delisquescent.

Chemistry.—A combination of citrate of iron with citrate of strychnia; 100 parts contain one part of strychnia. The presence of strychnia may be detected by treating the dried and powdered salt with chloroform, evaporating and applying the usual tests.

Physiological action and therapeutical use. — This salt has been successfully employed in dyspepsia arising from atony, in chorea, and in suppressed menstruation.

Dose.—Three to six grains.

3. *Ferri et Zinci Citras.* Citrate of iron and zinc.

Preparation.—

Citrate of sesquioxide of iron .	4 ounces.
Carbonate of zinc . . .	1 ounce.
Citric acid	3 ounces.
Solution of ammonia Water . .	A sufficient quantity.

Dissolve the citric acid in ten ounces of water, and add the carbonate of zinc gradually. Before the point of saturation is attained the solution will deposit the citrate of zinc as an insoluble powder. This is to be collected on a filter, and having ascertained by drying a weighed portion of the mass at 212° how much is equivalent to one ounce of dry citrate, this quantity is to be heated in a capsule with the citrate of iron and ten ounces of water. When the iron salt is dissolved, enough solution of ammonia is to be added to effect solution of the citrate of zinc, an excess of ammonia being avoided. The whole is now evaporated to a syrupy consistence, and spread on glass to dry in scales.

Physical characters.-Brownish-green scales. Taste ferruginous and slightly "metallic."

Chemistry.— This salt contains in addition to the citrates of iron and zinc ammonia, and would therefore be more properly named ammonia-citrate of iron and zinc. Its composition as found in commerce is very variable.

Physiological action and therapeutical use. —This salt is occasionally employed as a tonic in cases where the use of iron is not contraindicated. As an elegant form of administering zinc it is worthy of trial in diseases of the nervous system.

Dose—Two to five grains.—*American Journal of Medical Sciences.*

* * *

Induction of Premature Labor, By Dr. Barnes' Method.

By F. M. Corner, Esq., M. R. C. S., Surgeon to the Poplar Hospital.

The following case illustrates in a most satisfactory manner the perfection of the method of inducing premature labor introduced by Dr. Barnes, and is an instance of a most useful application of the method in a case which could hardly have been relieved so successfully and so speedily by any other means.

My patient, aged about thirty, menstruated naturally at the end of July, when she considered she became pregnant of her third child. From this date to Sept. 10th she had a slight discharge of blood, lasting a day or so and disappearing for several days; and then (Sep. 10th) a large quantity of aqueous discharge, with reduction of the size of the abdomen, but no change in the fulness of the breasts or other symptoms of pregnancy. On the 23d of October a larger loss of blood took place, attended by shrinking of the mammæ, coldness in the abdomen and thighs, and a drain from the uterus of black thick fluid. Her general health underwent change, she feeling sickly, faint, and thoroughly "out of sorts."

I first saw her in the early part of November, and found a tumor, shaped like the pregnant uterus, reaching to the umbilicus, soft and doughy to the touch, and giving the impression of nothing beyond fluid within. Internally the os was found patent, the sound being readily passed several inches. After watching her for several days, I determinad on exploring the interior of the uterus, believing in the presence of a deceased fœtus.

On the 8th of November, having opened the os somewhat by a sponge tent, I at a quarter-past eight P. M., introduced Dr. Barnes's second sized bag and inflated it, to secure moderate pressure within the canal, and left for an hour. It was then found that regular uterine pains had been established, and the os had dilated and seemed very dilatable. The largest-sized dilator was then passed, and at intervals of a few minutes was progressively filled, effecting, like the one first used, dilatation and uterine action. At eleven P. M., the os was sufficiently dilated to allow of a full examination, when I found a tough membranous bag presenting, pressed down by each pain. This failing to make much progress, I gave a dose of ergot and punctured, liquor amnii escaping, and almost directly following, a fœtus, of, I should fancy, three months' gestation. The head was encircled by the os for some minutes, so that before expulsion, I could not determine whether it was living or not; it was not at all decomposed. I left at midnight, congratulating myself on the issue of the case.

I may briefly mention what struck me particularly in the use of these instruments; the ease with which they were introduced within the os by the aid of a pair of long, straight, narrow-bladed forceps, commonly used, I believe, for cleansing or making applications to the uterus; the absence of complaint on the part of the patient; and their speedy action in dilating the parts and inducing natural expulsive pains. For the purpose intended by Dr. Barnes, I have no doubt they will prove everything he has stated. Certain, safe and speedy, what more can be desired? I never had any case the result of which pleased me more. Every thing went as one wished, neither more nor less.—*London Lancet.*

INFLUENCE OF HYPERTROPHY OF THE HEART AND DISEASES OF THE CEREBRAL ARTERIES IN THE PRODUCTION OF APOPLEXY. — Dr. A. EULENBURG has investigated this subject statistically in a prize thesis presented to the Medical Faculty at Berlin. In 42 cases of sanguineous cerebral apoplexy, abnormal conditions of the arteries at the base of the brain—hardening, calcareous deposits, and fatty degeneration—were found in 29; in 13 cases only were the large cerebral arteries free from disease. In 9 of the 42 cases there was hypertrophy of the left ventricle. Of the 29 cases in which disease of the cerebral arteries was present, there was also more or less extensive endocarditis in 17, alterations of the valves of the heart in 19, and hypertrophy of the left ventricle in 6 only. Dr. Eulenburg hence draws the conclusion that disease of the cerebral arteries is a much more frequent cause of apoplexy than cardiac hypertrophy — *British Medical Journal*, Dec. 6, 1862, from *Virchow's Archiv*, and *Wiener Medicin. Wochenschr.*, Sept. 6, 1862.

MEDICAL SECRECY.—The Medical Societies of Paris are at present exercised in regard to the question whether a physician, when consulted with regard to the health of a patient with reference to marriage, should refuse to give any information? The societies of the viii and ix arrondissements have decided as to the obligation of secrecy; while the society of the vii arrondissement have declared that while in general the above rule is correct, there are also circumstances in which the dictates of conscience are above the law [a higher law]. This last seems to us to be a dangerous decision, and one which might lead to great abuses.

Knowledge gained by a physician in his professional capacity should be deemed sacred, and not to be divulged under any circumstances. It is very questionable whether it be safe to make any exceptions to this rule, and if any be made, they should be extremely rare.—*Med. News.*

ORIGINAL PAPERS.

Rhinoplastic Operation.

BY H. H. TOLAND, M. D.

John Lane, aged 35 years, a resident of Wisconsin, was during the winter of 1850 exposed to such excessive cold weather that his nose became frozen, and he lost the cartilaginous as well as the soft parts composing that organ.

Plate 1st represents his appearance before the operation. Being in good health and exceedingly anxious to be relieved from the distressing deformity, the first part of the operation was performed Jan. 3d, 1863. While partially under the influence of chloroform, a pattern made of leather, nearly the form of a minature bellows, was placed upon the centre of the forehead, and a corresponding portion of the skin detached.

The incision extended below the eyebrows, half an inch on the left side, and three-quarters of an inch on the right, which permitted the integument to be twisted at the proper point between the eyebrows, being careful to adjust it without strangulation.

The edges of the original nose were then removed, and after the hemorrhage had sufficiently subsided, the parts were brought together and retained by metallic sutures. The only dressing applied was a cloth wet with warm water, covered with oiled silk, which was changed morning and evening until the parts were firmly united.

The sutures were not removed until the end of the second week, when the pedicle was divided, adjusted and secured with three points of silver suture.

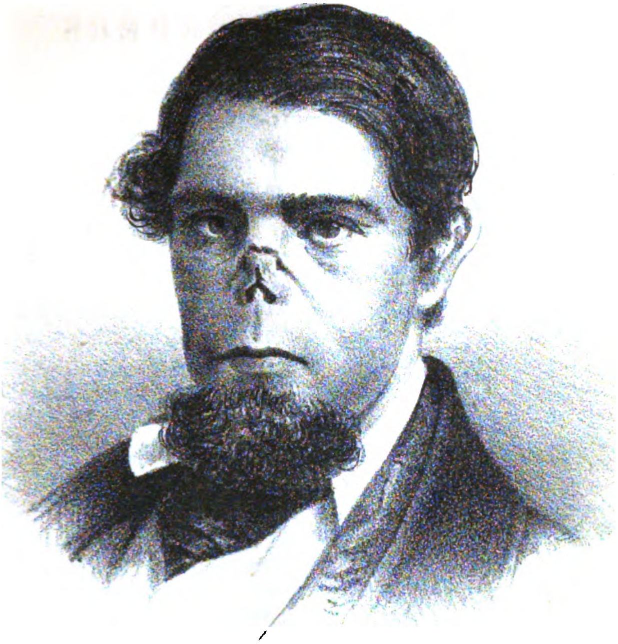
In two weeks the union was complete and the nose much more perfect than I thought could be produced, with the exception of a ridge extending from near the internal angle of each eye downwards and outward below the corners of the mouth, leaving an unnatural depression. This I removed by uniting them with the sides of the artificial organ, thereby increasing the apparent elevation of the base, improving its form and giving it four secure attachments, instead of two, that are generally relied upon, and which accounts for the atrophy of the part that occurs some months after the completion of such operations.

Union was effected by the first intention; and the nose, instead of shrinking, has become much more firm and vascular than it was soon after the operation. Indeed, the skin increased so much and rapidly in thickness that it became necessary to insert a silver tube, about an inch in length and slightly curved, to prevent the internal opening becoming entirely closed by the production of tissue.

Plate No. 2 was taken just four months after the first, and is a good likeness, being photographed by Johnson.

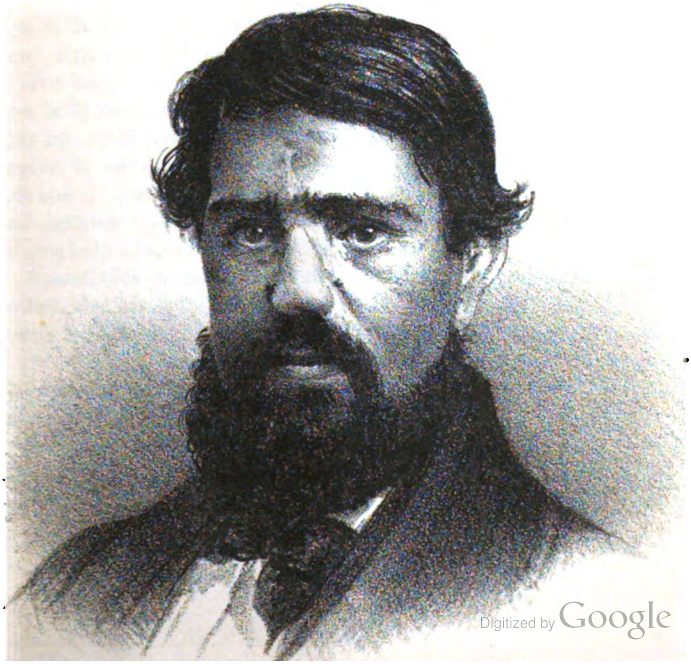
PLATE TO D^r TOLAND'S PAPER

No. 1.



Before the Operation

No. 2



Foreign Body in the Trachea.

BY THOS. M. LOGAN, M. D., SACRAMENTO.

In the January number of the *Pacific Medical and Surgical Journal*, a case was reported by Dr. F. W. Hatch, of Sacramento, of a child who had, while eating a watermelon, inhaled one of the seeds into the larynx, which, in consultation with Drs. Hatch and Morse, I had occasion to see. It will be recollected by the readers of the JOURNAL, that the result of this case was favorable without an operation, the seed having been ejected in a sudden paroxysm of coughing, some two or three weeks subsequently. Cases of this kind, when the conservative efforts of nature are effectual in removing a mechanical obstacle, threatening at any moment the life of the patient, must be always interesting to the profession.

Having been myself a witness of the efficacy of delay in the instance referred to, I take pleasure in reporting another case in which the adoption of a similar course of policy was equally successful.

On the 2d December, 1862, I was sent for to visit the child of Mr. P., aged about one year, residing some 25 miles northwest of this city, near Woodland. On arriving, at about twelve o'clock at night, I found Drs. Bynum and Boone in attendance, and doubtful as to the propriety of postponing an immediate operation for Tracheotomy. The history of the case as related to me, was as follows:

Two or three days previously the child had inadvertently drawn a melon-seed into its larynx while its mother was preparing the melon for culinary purposes. Symptoms of imminent suffocation instantly presented themselves. The breathing became stridulous, and other alarming symptoms of a foreign body obstructing the respiration were manifested. The distress becoming more and more severe, and the necessity for medical interference more urgent, it was determined by the attending physicians to seek additional counsel. Upon my arrival the child was in a state of great restlessness and agitation; the pulse frequent; coughing paroxysmal and severe, and the respiration labored and difficult, being easily heard in the adjoining room. Auscultation revealed the presence of a foreign substance moving about within the larynx by the forced efforts at inhalation and exhalation.

Notwithstanding these alarming symptoms I was induced, by the recollection of the case referred to, fresh in my mind, to advise a temporary postponement, in the hope that palliation might be procured for a time and the difficulties ultimately removed without interference.

The correctness of my conclusions and the fortunate results of delay have been happily demonstrated in the denouement. Only a few days since the father of the child called upon me at my office for professional advice, and upon inquiry as to the issue of the case above referred to, informed me, to my great gratification, that the seed had been ejected naturally some five months subsequent to my visit. The usual paroxysmal symptoms indicative of the presence of a foreign body in the larynx had continued up to the time of its expulsion, since which the relief has been complete.

The case is important as showing how long a foreign body can remain in so delicate a position without producing morbid action; and taken in connection with the other case alluded to, should caution us against a too hasty resort to the knife. At the tender age of this child the difficulties of an operation are necessarily enhanced — the danger not to be overlooked in forming a determination. That nature unaided has succeeded in some urgent cases in affording timely relief is at least gratifying.

SACRAMENTO, May 7th, 1863.

United States Marine Hospital Reports.

BY JOHN HASTINGS, M.D.

A NEW REMEDY FOR LUPUS—SUCCESSFUL TREATMENT OF THREE CASES.

LUPUS ranks among the most unmanageable and disfiguring of the organic diseases of the skin. Heretofore it has been found much easier to give the diagnosis, prognosis, and history of this troublesome disease, than to give a recommendation of treatment likely to arrest its progress.

Of all the diseases of the skin, probably lupus is the last which the surgeon or physician would wish to be called to.

In a disease so destructive and unmanageable as the subject of this article, it becomes the duty of every mind which discovers a mode or means of arresting its progress, to give it publicity.

The following brief sketch of lupus is not intended to impart knowledge to the intelligent reader, but simply to refresh his memory.

Lupus is an organic disease of the skin. generally seen upon the face, nose and upper lip.

It is characterized by tubera, which are rather oval, frequently flat, and of a brownish-red or livid color. They increase and terminate in ulceration; an ichorous discharge is then poured out, and concretes into crusts. It appears upon the nose and cheeks generally, and sometimes upon the ears and chin; but in eight cases out of ten the nose is the seat of the disease. The parts around become harder and harder; suppuration goes on to ulceration; till at last a great degree of destruction is produced.

There are varieties of lupus spoken of by authors, some of which they say are cured spontaneously. But there is no variety in the severe cases which come to the physician from second or third hands, having resisted all attempts to arrest its progress. This variety produces deep ulceration, and sometimes extreme pain; destroys the skin and cartilages of the nose, and, as it were, melts away the cheeks, lips and chin; and frequently appears to be allied to cancer. Lupus is easily diagnosed; but it has been compared to and probably sometimes confounded with scirrhus; but the features by which it may readily be distinguished from scirrhus are the following: First, Cancerous disease usually attacks the lower lip. Second. The uneasiness complained of in lupus, generally, is no more than what is comprehended under the general designations of "heat, itching, tingling or smarting;" while scirrhus ulceration is accompanied by severe darting pains. Third. Diseased enlargement of the contiguous glands does not often make its appearance in lupus, even though the disease has existed for years; which is not the case with cancer. Fourth. The surface of the sore is never occupied by fungus granulations, or has thickened and hardened or everted edges, but retains its peculiar character to the last.

CASE I.

Mr. B., about 35 years of age, came to me in May, 1857, to treat him for an incurable disease, as he informed me.

HISTORY.—His habits were good, and previous to the present disease had enjoyed good health for years; but about eighteen months before I saw him, his nose on one side became sore. At first he paid but little attention to it; however, it grew worse, and he applied for advice. The treatment under which he was placed seemed only to aggravate the disease; the ulceration continued to spread; and he continued seeking relief from various quarters, without success, (which is too often the case in this disease) when he came to me.

CONDITION.— When I first saw him the left ala of the nose was gone, and the right invaded; the left cheek was badly ulcerated; the disease occupied nearly the whole of the upper lip, running slightly into the mouth, and from the left corner of the mouth it passed down and involved the lower lip and chin. There was considerable discharge of matter from the part, and the sore was painful. From the effects of the ulcer he had lost his appetite; he was quite thin, and in utter despair from his deplorable condition. He went about attending to his business with his face covered up in a mask of cloths.

TREATMENT.— There was no difficulty in the diagnosis, so that I placed him under the treatment for lupus, as recommended by the best American and English authorities, but with no appreciable effect. I then had recourse to such variations of treatment for this disease as I could find in French and German works, but found no difference in the result. I gave him the benefit of consultation with those whose opinions I prized most; still his condition became worse than it was when he first came to me, some months before. My patient (as well as myself) was in utter despair. I had made a special study of his case, and I concluded to try the effect of stramonium. (Fortunately I had, long before I saw this case, sent to the Atlantic States and imported seeds of the Datura Stramonium, to introduce the plant here, for singular to say, it was not to be found on the Pacific side of the continent, so far as I could learn by observation and inquiry; still it may have been cultivated in some localities before. I have since distributed seeds of my own raising to doctors in various parts of the State, so that hereafter the valuable medicinal properties of this plant will be at the service of the profession; for I can show that it is useful in many diseases besides the subject of this article; in which its effects are marvelous—approaching as nearly to a specific as nature affords us; at least it appears so to me, as far as I have had opportunities for testing it.

The general health of Mr. B. at this time was not good; therefore he was directed to take a two grain pill of quinine three times a day, as a tonic; and to take as much nourishment as possible, but no stimulants. He was then ordered to bruise the fresh leaves of stramonium and make them into a poultice, and apply it to the whole ulcerated surface, renewing the poultice night and morning.

In the course of a week there was evident improvement. After about two weeks the poultice was discontinued, and an ointment made from the stramonium leaves was freely applied night and morning, the parts being well washed with warm water before the application of the ointment.

RESULT.—His general health went on improving, and about eight weeks from the first application of the stramonium he was well. He has had no return of the disease to this day. Scarcely a week elapses that I do not meet him in the streets about his business, and I believe I have not prescribed for him since his recovery.

CASE SECOND.—I. M. A., waiter in a hotel, about 30 years of age, came to me in August, 1858, affected with lupus of the nose and face.

HISTORY.—His health had been good for years, until the present disease came on, about a year ago, without assignable cause. He had been for a long time under treatment, but the disease continued to advance notwithstanding all that was done to arrest it.

CONDITION.—When I first saw him, his general health was bad. The disease occupied the entire nose, a portion of the left cheek and the upper lip. He suffered very little pain from it, but the discharge of matter from the ulcer was considerable. He could not follow his vocation in this condition, and he was consequently in a depressed and melancholy mood, without appetite or energy.

TREATMENT.—Profiting by my happy experience two years before in the first case, I placed him under the same treatment.

RESULT.—Fortunately for patient and physician, the same good result was arrived at in this, as in the former case. In six weeks' time from the adoption of the stramonium treatment the case was cured. This man has remained in the city since his recovery, four years ago; he has had no return of the disease, and has not lost a day from indisposition since his recovery.

CASE THIRD.—J. Hendriques, seaman; age 41; native of the West Indies. Was admitted into the hospital January 14th, 1863. Affected with lupus, having also an ulcer on the left leg.

History.—He had just come in from sea. His nose had been sore, he stated, for a long time, and the ulcer continued to spread. His leg had only been sore, this time, for a week or two, but it had been ulcerated once before. He had never taken professional advice about his nose and face.

Condition.—His general health was excellent. There was no analogy between the ulceration of the leg and that of the face; the former was simply an indolent ulcer; but the ulceration which occupied nearly the whole of the nose, and a portion of the left cheek, was, beyond doubt, lupus.

Treatment.—I had the patient placed in bed, on account of his leg, which was elevated and treated according to well known principles for such cases. His bowels were opened once a day by laxatives, when nature failed to do it without their aid; but beyond this he took no medicine internally.

A large number of medical gentlemen saw his case, and the diagnosis without an exception, was lupus.

To this case I simply applied the stramonium ointment (made from the fresh leaves of the plant, now cultivated around the hospital) night and morning, having the part washed with warm water before each application. The patient was put on full diet from the first.

Result.—In five weeks the lupus was cured.

March 3d, 1863, his leg was well and he went on shipboard again.

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Galvanism applied, by Aid of the Laryngoscope, to the Vocal Cords. — The electric current has been brought to bear directly on the vocal cords by Dr. Morrell Mackenzie, and two cases of functional aphonia have yielded to it immediately. One patient had completely lost her voice for two years, and had been in London Hospital for some months, where every remedy had been used in vain by Dr. Mackenzie. Cauterization of the larynx, blisters, and even the employment of galvanism externally, had all failed, but the application of galvanism directly to the vocal cords succeeded at once, and, after a week, the patient spoke as well as she had two years previously.

In the other case, where the loss of voice was of eighteen months' duration, and where every kind of treatment had been tried unsuccessfully in the London Hospital, the voice was immediately restored by galvanism directly applied to the vocal cords. Dr. Mackenzie has invented an instrument by which the electric current can be set going, but does not pass beyond a certain distance till the point is introduced into the larynx, when a spring is touched, and the current reaches the vocal cords. Dr. Mackenzie recommends the remedy in early stages of clergymen's sore-throat, before the perverted state of the nerves has led to follicular deposit.—*Med. Times and Gaz.*, Feb. 7, 1863.

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Placentæ of Triplets.—Dr. Grimsdale showed a specimen of placentæ of triplets to the Liverpool Medical Institution (December 11, 1862). All the three children are now alive. Two of them measured each eighteen inches in length, and the other seventeen; they were strong children. The placentæ were by no means small; two of them were connected together, the third was quite separate.—*British Medical Journal*, January 10, 1863.

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

III.—THE SUCCESSORS OF HIPPOCRATES. PLATO, DIOCLES, CHRYSIPPUS, PRAXAGORAS, ARISTOTLE.

From the fourth century B. C., to the third A. C., from the age of Hippocrates to that of Galen, medicine was cultivated with care, but diverted from its original and legitimate purpose. After Hippocrates, the various philosophic sects, still engaged in vain and abstruse speculations on the origin and essence of things, drew again into their vortex of error the science of medicine, which had for a time escaped their influence. Thus the particular tenets of Plato, Aristotle, Zeno, Pyrrhon and Epicurus, gave rise to as many medical dogmas, which adhered more or less rigorously to the principles or logical methods of these philosophers.

Thessalus and Draco, the sons of Hippocrates, and Polybus, his son in-law, continued the work of their father, but not without corrupting the spirit and purity of his doctrines. Many of the writings attributed by some to Hippocrates, are said by others, to be the joint productions of his sons; indeed some of the most zealous defenders of the father assert that it was not he, but they, who, adopting the theory of Empedocles, ascribed all diseases to the four elements of that philosopher. Thessalus, Draco and Polybus are generally regarded as the founders of the Dogmatic Sect, the first on record in our science, established on logical principles.

From the time of Thessalus to that of Praxagoras of Cos, medicine was governed by the philosophy of Plato, who, as is evident from his Timæus, directed his attention not only to psychology, but also to physiology.

A disciple of Socrates, from the age of nineteen until the fatal hemlock deprived him of his master, Plato, while promulgating the precepts thus acquired, secured for them a lustre and duration they would probably never have obtained, had it not been for the exquisite forms of thought and language· the vigorous and graceful style, with which he adorned the opinions of his preceptor.

A brief *expose* of the mental process on which this illustrious genius based his philosphical researches, and of the peculiar theories which resulted therefrom, is necessary here. We will let him speak for himself: "Is there anything more rational," he says, "than to think by thought alone, disengaged from all foreign elements and influences; to apply immediately the pure essence of thought itself to researches into the pure essence of each thing in itself, without the ministry of the eyes or ears, without any intervention of the body, which would only disturb the soul and hinder it from finding truth and wisdom. If one can ever arrive at the essence of things, must it not be by this means?"*

Thus he not only acknowledged the Anaxagorean proposition that the intellect was the rule and principle of all things and based the sciences, moral as well as physical, on mental intuition; but he also proscribed the use of the senses, and, consequently, observation and experience, which can only be acquired through their medium.

Following this ratiocination he established as a principle, that God and matter existed from all eternity, but that the latter was amorphous, and had neither property nor force. God originally gave it a triangular form. Afterwards, taking a certain number of primitive triangles, he composed with them the four elements, fire, earth, air and water.

The human body, according to his theory, was formed by the union of the finest and most regular of these triangular atoms, the Supreme Being having first created the spinal cord, by means of which the soul and body were united during life.

Life, he declared, was sustained by the *pneuma* and by a particular fire which dissolved aliments, produced digestion and formed red blood. He explained nutrition by the tendency which parts similar in their nature have to unite, and by his theory of triangular atoms. He divided the soul into three parts; one part of it, he says, is capable of reason, another presides over the appetite, the third over the passions. He placed the reasoning part in the brain; the appetitive part in the space between the diaphragm and the umbilicus, and the passionate part in the chest. †

Making no distinction between the arteries and the veins, he thought that the blood whirled rapidly through all parts of the body. Like Hippocrates, he divided the intestinal canal into two parts only—the colon and the rectum. He confounded the ligaments, tendons and nerves, which he believed were nourished by the bones. Plato deemed the proximate cause of diseases to be a want of due proportion in the distribution of the four elements, by which he explained every thing. Continued fevers were occasioned by excess of fire; quotidians, by excess of air; tertians, of water; and quartans, of earth, etc.

Such were some of the principal speculations of this remarkable philosopher respecting our science.

About this time Greece swarmed with sophists;‡ observation was neglected, and an irresistable argument was thought to be expressed in the following precept of Plato—"*What the eye cannot see can be perceived by the intellect.*" (De Arte, p. 11.) This favorite axiom served as a pretext for deserting the field of observation, as was done by the dogmatists, among whom, at that time, Diocles, of Carystus, and Chrysippus, of Solis, were the most distinguished.

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* Œuvres complètes de Platon. traduction de M. Cousin, p. 203.

† Diogenes Laertius. Lives of the Philosophers. Translated by C. D. Yonge. London ed. 1852. p. 144. Cousin, Op. Cit. p. 197–199.

‡ Bacon remarks (Aph. lxxi) "The wisdom of the Greeks was professorial, and prone to run to disputations; which kind is very adverse to the discovery of truth. And the name of *Sophists*, which was cast in the way of contempt by those who wished to be reckoned philosophers, upon the old professors of rhetoric, Gorgias, Protagoras, Hippias, Polus, does, in fact, fit the whole race of them, Plato, Aristotle, Zeno, Epicurus, Theophrastus, and their successors Chrysippus, Carneades, and the rest."

Diocles in his practice followed Hippocrates, with a few variations of no great importance. It is said that he devoted more attention to anatomy than his predecessors, but according to Galen, he merely promulgated what had been kept secret on this subject by the Asclepiades. In Surgery he invented an instrument (Bellulon) for extracting darts from the flesh, * and a bandage, which bore his name, for wounds of the head. Sprengel observes that it is probable he made no use of sudorifics, because he regarded sweating as a morbid or unnatural state of the system. In a fragment of his works, which has come down to us through Galen, who quotes it, Diocles gives a good description of the symptoms of dyspepsia, under the name of *Melancholic disease.*†

Of Chrysippus, who belonged to the Pythagorean sect, we know but little. He rejected bleeding, probably believing, with his master, that the soul had its seat in the blood. He prohibited purgatives and regarded wine mixed with water as the best remedy that could be employed in bilious dysentery. He also, like others of the same sect, placed great confidence in the virtues of cabbage—indeed, he devoted a volume to the explanation of its medicinal properties.‡

Praxagoras of Cos, the last of the family of the Asclepiades, paid great attention to anatomy. In physiology and pathology he differed but little from his predecessors. He believed that the principal cause of diseases was in the humors, of which he acknowledged ten—the temperate, the sweet, the vitreous, the acid, the nitrous, the saline, the bitter, the green, the yellow and the viscid. His opinions on nutrition coincided with those of Aristotle. He particularly noticed the state of the pulse, and we are informed that he derived many of his pathological indications from that source. In his practice, like Diocles, he used only medicines from the vegetable kingdom. As a surgeon he acquired great reputation among his contemporaries. §

We now come to one of the most important events of our history :— the birth of Aristotle, which occurred at Stagira, about the 99th Olympiad, (384 years B. C.) This master-mind of antiquity flourished in Athens, "when Athens was the ornament of Greece, and Greece under Alexander, the first country on earth." The doctrines of this celebrated philosopher of antiquity exercised over medicine a long and absolute despotism. For twenty centuries the opinions of Aristotle were deemed incontrovertible and regarded with religious veneration. It was not until the time of Galileo, of Bacon and of Baglivi, that men learned to think that observations on the natural world were more valuable than the study of innate ideas, and that the experience which teaches us a single fact, is more to be prized than the most ingenious hypo t hees.—The dawning of these new lights dimmed in some measure the reputation of Aristotle, but it could not entirely eclipse it, for it depended upon other titles which time has consecrated.

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* Celsus, lib. vii, p. 5. Schulz. Hist. Med., p. 346.

† Galen de Aliment. Facult. Lib. 1, cap. xiii. Le Clerc, Op. cit. p. 279.

‡ Sprengel. Hist. de la Méd. vol. 1, p. 365.

§ Le Clerc. Op. cit. p. 283–284.

A pupil of Plato, Aristotle established his system in direct opposition to the original dogma of his preceptor.* According to the Stagirite, "*nihil est in intellectu quod non prius fuerit in sensu.*" Ideas which are representations of objects, reach our minds only through our organs of sense. After having thus accurately established the fundamental rule of his system, he unfortunately deviated from the true path in his second proposition, viz —"*that the first ideas which are produced on the mind by the senses are general ideas ;*" —a doctrine which was accepted until Bacon, Locke and Condillac, in modern times, demonstrated the superiority of the inductive method as a guide in the physical sciences.

While these philosophers admit the correctness of the first axiom of Aristotle—"that all ideas come from the senses," they reject the second, and maintain that *our first notions are the results of particular or individual ideas.* This distinction, apparantly of trivial or secondary importance, is, in reality, far from being so—especially when one or the other of these two methods is made the starting point and *general rule* in the physical sciences. By one, generalization is admitted *a priori*, by the other, on the contrary, it is attained only by the *apparently* slower, but surer process of induction. † To make this evident, it is only necessary to compare the results obtained in the arts and sciences under the respective predominance of the two methods. What were they, under the deductive method, during the two thousand years which separated Plato and Aristotle from Bacon, compared with the immense acquisitions made, under the guidance of the inductive method, in every department of physical knowledge, from the first half of the seventeenth century to our day ?

Of these two methods pursued by mankind to arrive at truth— the inductive and deductive —Aristotle unfortunately, (not so much for himself as for his followers), selected the latter. His extraordinary intellect, it is true, enabled him sometimes to arrive intuitively at correct generalization, but his method, far more frequently involved him in a labyrinth of speculations, from which it took centuries for the generations which followed him to extricate themselves.

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* "He seceded from Plato while he was still alive ; so that they tell a story that he said : Aristotle has kicked us off just as chickens do their mothers after they have been hatched." Diogenes Laertius. Lives of Philosophers. Translated by Yonge. London ed. 1853. p. 182.

† Aristotle made up his mind beforehand. He did not consult experience in order to make right propositions and axioms, but when he had settled his system to his will, he twisted experience round and made her bend to his system. Bacon. Novum Organum. Aph. lxiii.

However, the researches he was compelled to make in order to sustain his peculiar views, led him not only to collect most of the facts and hypotheses promulgated by his predecessors, but also to make many valuable additions to the knowledge of his day.

Whether he would have arrived at more accurate and satisfactory results, and whether he would have left so great a name to posterity, had he followed the inductive method, and entered upon his inquiries unbiased by preconceived ideas and systems, is a question which may well be asked. Be this as it may, it cannot be denied that his method, accepted blindly by his less gifted followers, had the most deplorable consequences, especially in our science.

Applying this *a priori* method to the study of Physics, Aristotle based a system on the following principles of contraries:— 1st, the opposition of heat to cold; 2d, that of dryness to humidity; to both of which he attributed a common basis,—Ether. Like Plato, he adopted the four elements of Empedocles, which he supposed were susceptible of transmutation. He even went so far as to describe the laws which govern their changes. Besides these four, he believed that in the highest heavens there was a fifth element, which had a rapid, circular and eternal motion, which was imponderable and inalterable, which was the first and most divine, and which served as a basis for all the others.

In medicine we find him still adhering to his method of commencing by generalizations,—adopting imaginary theories, and with all the power of his gigantic and logical mind, forcing facts to sustain them. He also had recourse to abstract and vague principles, and to occult powers and causes which had no other merit than an appearance of severe logic.

His pathology and therapeutics were based on the four elements and their imaginary qualities. In physiology he commenced at the most obscure point viz:—by an examination into the nature of the soul, its faculties and functions. According to him, the soul constituted the essence of all living bodies, vegetable as well as animal. He believed it to be endowed with four primitive faculties—the nutritive, the sensative, the motive and the intellectual.—He had no correct idea of what constituted the locomotive power which he placed in the centre of the body. He confounded the tendons and the ligaments with the nerves, and the muscles he designated as *flesh*. That he was not aware of the elevated functions of the brain is manifest from his making the heart the seat of the soul and of sensation.*

In natural history, however, proceeding by a different method, he rendered greater services. He was the creator of comparative anatomy and his History of Animals, is said by Buffon, to be the best of its kind. †

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* Sprengel. Op. cit. vol. 1, p. 408. Renouard, Hist. de la Med., vol. 1, p. 501.

† It is worthy of remark that Aristotle proceeded in Natural History very differently from what he did in metaphysics, medicine, etc. "In his zoology, he offered one of the first models of the inductive method."—Raige Delorme.

He examined the various parts of the body in all classes of animals, and described the different forms which each one presented, after which he drew his conclusions. Sprengel. Op. cit. vol. 1, p. 401.

The doctrines of Aristotle held such unbounded sway over the scientific world for so long a lapse of time, that we would fain dwell longer on them, but the limits of our sketch will not permit. We hope, however, that this summary notice of his speculative theories is sufficient to show what a dangerous guide he was in a science like ours. And, if in our remarks we have dwelt far more on the errors committed than on the services rendered by this great genius of antiquity, it is because we have had to consider him under the most trying test,—that of a medical philosopher.

Let us then, while lamenting the errors which trammelled his splendid intellect and dimmed the lustre of his name, grant what he demands for himself in the conclusion of his "Analytics." "This work," he says, "has cost me much time and labor. I claim indulgence then, for what I have omitted, and gratitude for what I have done."

IV.—THE MEDICAL SCHOOL OF ALEXANDRIA—HEROPHILUS—ERASISTRATUS.

The course of our history now leads us back to Egypt, the cradle of the arts and science. On the dismemberment of the vast empire of Macedon, after the death of Alexander the Great, Alexandria became the home of intellect. (321 years B. C.) Under the munificent patronage of the Ptolemies a philosophic school was created in that city, which for nearly 500 years, retained the superiority it soon gained over all others. Medicine was one of the sciences over which it extended its fostering care, and so zealously was it cultivated that its professors soon became the most distinguished of their age. Amongst them were Herophilus and Erasistratus who availing themselves of the good will and powerful protection of the Egyptian sovereigns, struggled successfully against the prejudices which had, until then, impeded the progress of Anatomy. And so well did they improve the opportunity, that they are not only considered the creators of that branch of medicine, but as having left it in a state of advancement to which little was added, except by Galen, for nearly twenty centuries after. Many authors assert that they were the first who ever dissected human subjects, but this is very improbable; indeed, we have the positive authority of Galen, that Praxagoras, the preceptor of Herophilus, had preceded them both in this matter. Be this as it may, it is very certain that the two Alexandrian physicians were the first to point out many of the errors into which their predecessors had fallen in applying to the human subject observations made on animals which most resembled it.

The anatomical names given by Herophilus to numerous parts of the human body, and by which they are still known, show how extensive must have been his knowledge in this department. He studied the nervous system with more care than had ever before been given to it, and as an evidence of his perspicacity and industry, it is sufficient to say that the honor of having given the first description of the chyliferous vessels has been conceded to him.

Herophilus paid great attention to the variations of the pulse, but his theory on this subject is subtle and minute in the extreme. Like his master, Praxagoras, he attributed all diseases to morbid changes in the humors.

His colleague, Erasistratus, was not less celebrated as an anatomist. Galen cites a passage from him which shows that he had observed the ventricles of the brain. He, also, discovered the origin of the cerebral nerves and their distribution throughout the human body. He ascertained with much more correctness than had been previously done the structure of the heart and the origin of its great vessels. The tricuspid and sigmoid valves were first observed by him, and he gave them the names by which they are still designated. He believed, however, with Herophilus, and with his contemporaries and predecessors, that the arteries were filled with the air (pneuma) inspired by the lungs. From the lungs it passed into the heart, from the left ventricle of which it was distributed by the arteries throughout the system. If it was objected that a wound in an artery occasioned great loss of blood, which escaped with violence; he extricated himself from this difficulty by replying that as soon as an artery was opened the airy element escaped, and in this unnatural state it attracted the blood from the neighboring veins. The slightest incision could not be made without producing this effect, because the skin was completely penetrated with small ramifications of the arteries. He also accounted in this way for the blood found in the arteries on dissection. He distinguished two sorts of air: the *vital pneuma* which stimulated the heart, and the *spiritual pneuma*, which operated through the medium of the brain. He was the first who had a correct idea of the use of the trachea; he also exposed the erroneous theory of Plato respecting the passage of fluids from the mouth into the lungs.

Erasistratus is regarded as the founder of the system of solidism in medicine. Rejecting the doctrine, then in vogue, which attributed all diseases to morbid changes in the humors, he sustained that their true seat was in the solids. He denied that the blood and humors were morbidly altered in fevers and inflammations. In such cases the fluids, according to him, were only unequally and unnaturally distributed.

In his practice, like Chrysippus, his master, he condemned bleeding and all active purgatives, trusting principally to regimen, simples, exercise, baths, etc.*

Among the disciples of Herophilus and Erasistratus, who acquired celebrity, were Demetrius, Mantias, Bracchius and Andreas, who, like all the Dogmatists of that epoch, gave more time to arguments than to the study of facts.

Thus, in medical philosophy, we see up to the epoch of the Empirics, only the most opposite theories, merely speculative in their character, all disputing the field of internal pathology. The then recent discoveries in anatomy and botany,* instead of encouraging physicians in researches after facts, were made to serve only as an explanation for their particular doctrines. Thus, neglecting the wise path indicated by the father of medicine, the anatomical labors of Aristotle, Herophilus and Erasistratus, were lost. The treatment of diseases was deplorably uncertain. Hippocrates, Diocles, Praxagoras, Aristotle, Herophilus, Erasistratus, etc., were alternately the oracles of the day, and their disciples, overlooking the facts contained in their doctrines, seemed to choose only the errors they had promulgated, viz: their imaginary theories. To add to this unfortunate condition of our science the sophists invaded with their subtilities the domain of medicine. Hence arose a multitude of systems, more or less hypothetical, and the disciples of each believed themselves infallible when they could by vicious arguments, instead of facts, confound their adversaries.

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* We have only fragments of the works of Herophilus and Erasistratus, transmitted to us by Celsus, Cœlius-Aurelianus and Galen. Ackermann, in the Bibliotheca Græca of Fabricius, has collated all the fragments from the works of Herophilus, and Le Clerc in his valuable history of medicine gives a detailed account of them, pp. 315–323. See, also, Sprengel, Op. Cit., Vol. 1, pp. 426–450. Dezeimeris, Dict. Hist. de la Med.

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* Theophastus, a contemporary and friend of Aristotle, is regarded as the creator of the science of Botany, which he cultivated with care.

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BIBLIOGRAPHICAL NOTICES.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By Gunning S. Bedford, A. M., M. D., Professsor of Obstetrics, the Diseases in Women and Children, and Clinical Obstetrics in the University of New York. Author of "Clinical Lectures on Diseases of Women and Children." Illustrated by four hundred lithographic plates and ninety-nine wood engravings. Third edition, carefully revised and enlarged. New York: William Wood & Co., 61 Walker street. 1863. pp. 743. For sale by A. Roman & Co., 417 and 419 Moutgomery street, San Francisco.

THE high approval of the labors of an author by his peers is the most gratifying reward he can possibly receive. Professor Bedford may well look back with satisfaction and pride on the hours bestowed on the composition of his work. The reputation of his "Principles and Practice of Obstetrics" is established—it ranks among our standard authorities.

In the short space of thirteen months it has passed to a third edition; it has been recommended as a text-book in nine of our medical colleges, and both from its intrinsic value and as a national work, it should be adopted by all.

The just appreciation of the merits of the book has not been limited to our continent. The foreign medical press, which is far from being prodigal in its praises when American authors are concerned, has recommended it in the most laudatory terms. In fact, no treatise on obstetrics has ever received, both at home and abroad, such an unanimously cordial welcome. We congratulate the author on this unprecedented success of his work, and feel proud of its American origin.

The course comprehended in Dr. Bedford's treatise is extensive, including as it does the whole department of obstetrics—the anatomy, physiology, signs and diseases of pregnancy, parturition and child-bed, brought up to the actual state of the science. Alike remarkable for its completeness, its sound philosophy, extensive research and the accuracy of its teachings, it possesses besides the great merit of being written in a clear, forcible and original style, calculated to please the reader, while impressing important lessons on his mind. It is the most interesting work on the subject that we have ever read, and the production of a master-mind.

The present edition has been carefully revised, and beside additions throughout the text, a lecture on Phlegmasia Dolens has been incorporated.

REPORT OF THE BOARD OF HEALTH OF SACRAMENTO CITY, for the year ending March 31st, 1863.

THIS well written document contains a synopsis of the labors of the Board of Health during the past year, together with interesting and useful suggestions for future hygienic measures. The probable causes to which may be attributed the remarkable exemption of the population from serious malarial affections, after the flood of 1862, are ably dwelt upon. The table of mortality from April, 1862, to April, 1863, gives a total of 360, of which 77 were under one year, 92 between 1 and 10 years; 22 between 10 and 20 years; 114 between 20 and 40 years, and 55 over 40 years; still-born, 22. The following are the remarks of the Board on this subject: "The result as a whole is, as already intimated, highly favorable to the climatic influences by which we are surrounded, and exhibits a sanitary condition at which, considering the unusual events which have occurred, and the many supposed causes of disease, we may well be surprised. The total number of deaths, deducting the still-births, reaches 338, or only five more than the average for the five preceding years."

The report concludes with a judicious recommendation respecting the drainage of the city. The board, of which Drs. Hatch, Logan, Montgomery, Oatman and Harkness are the members, deserve much credit for the faithful and intelligent manner in which they have discharged their duties.

THE MEDICAL STUDENTS' VADE MECUM. A Compendium of Anatomy, Physiology, Chemistry, Poisons, Materia Medica, Pharmacy, Surgery. Obstetrics, Practice of Medicine, Diseases of the Skin, etc. By George Meadenhall, M. D., Professor of Obstetrics and Diseases of Women aud Children in the Medical College of Ohio, Member of the American Medical Association, etc., etc. Seventh edition, revised and greatly enlarged, with two hundred and twenty-four illustrations. Philadelphia: Lindsay & Blakiston. 1863. pp. 692. From the publishers. For sale by Roman & Co., 417 & 419 Montgomery street, San Francisco.

As its title indicates, this manual gives a summary of the different courses usually pursued in medical colleges. "The object is to furnish the student of medicine with a short and succient view of the most important facts and principles which engage his attention during his pupilage, in order that he may refresh and fix more firmly upon his memory what he has read and heard, as well as to enable him properly to arrange his knowledge, so as to use it in the most advantageous manner."

The Druggists' General Receipt Book: Comprising a Copious Veterinary and Proprietary Medicines; Druggists' Nostrums, etc.; Perfumery and Cosmetics; Trade Chemicals, Scientific Processes, and an appendix of useful tables. By Henry Beasley, author of "The Medical Formulary" and "The Book of Prescriptions." Fourth American, from the Fifth London edition. Philadelphia: Lindsay & Blakiston. 1863. pp. 466. From the publishers. For Sale by Roman & Co., 417 & 419 Montgomery street, San Francisco.

This small and inexpensive work contains a large number of useful recipes. The druggist will find in it a considerable amount of information collected from a variety of sources, respecting the composition of articles belonging to his business, and which is not given in other books. The veterinary formulary comprises numerous recipes for the diseases of horses, neat cattle, sheep and lambs, dogs, etc. which make the work valuable also to the farmer and ranch-owner.

EDITOR'S TABLE.

On the Use of Arsenic in Gastralgia and Dyspepsia.

Dr. Massart has lately published in the *Gazette Hebdomadaire*, of Paris several interesting articles on the treatment of gastralgia and dyspepsia by arsenical preparations.

The arsenical treatment is particularly recommended in cases of dyspepsia depending on atony of the stomach and general atony, excepting those complicated with chlorosis.

It has failed in cases resulting from cirrhosis hepatis.

In dyspepsia symptomatic of cancer of the stomach, Dr. Massart has effected what he terms two brilliant "*palliative cures*," and he thinks that there is no remedy equal to arsenic in such cases.

In dyspepsia accompanying chronic gastritis, arsenic is counter-indicated.

In gastralgia, the indications and counter-indications rest on the same basis.

Flactulence is not remedied by the arsenical preparations, but requires an adjuvent treatment suitable to particular cases. When depending on acidity, Dr. Massart combines the bi-carbonate of soda with the arseniate of soda.

The following is the usual form in which Dr. Massart administers arsenic:

℞. Arseniate of potassa, 5 centigrammes (gr. ¾); distilled water, 300 grammes (℥ix); rectified alcohol, 12 drops.

M. From a dessert-spoonful to a tablespoonful morning and evening.

Osteocopic Pains—Periostitis, Nodes.—We have been in the habit of using for many years the abortive method advocated for buboes by Dr. Malapert, a French army surgeon, in cases of syphilitic osteocopic pains, periostitis and nodes affecting the tibia, ulna, clavicle, sternum and cranium.

A blister the size of a silver quarter of a dollar is applied over the painful bone, and a pledget of lint soaked in a solution of corrosive sublimate (gr. xv to xx for ℥i of water) is placed over the previously denuded vesicated surface and allowed to remain in situ for an hour. The parts are afterwards dressed with simple cerate. Considerable pain is caused by the caustic application, but the relief which follows is much more permanent than that attained by any other method we are acquainted with. The patients generally request of themselves a second or third application when necessary. In connection with the internal administration of iodide of potassium, we know of no superior treatment in these affections. In some obstinate cases, however, mercurial vapor baths twice a week may be added.

Variola.—The small-pox has lately made terrible havoc on the Pacific coast, both north and south of San Francisco. The Victoria papers mention that its ravages have been excessive among the Indians of Vancouver's Island (over 1,000 died.) In the southern part of our State, at Los Angeles for instance, the epidemic has also prevailed very extensively.

Lotion for Indolent Ulcers.—The following lotion will be found serviceable in indolent ulcers of the legs, etc.:

℞. Calcis chloridi ʒi.
Pulv. opii ʒiss.
Aquæ ℥vi.

Fiat lotio et cola. Sig. Keep the ulcers wet with it by means of lint.

Health of San Francisco.—The mortuary total for the month of April was 157, being 35 less than for the month of March. 93 deaths were recorded in the Lone Mountain, of which 14 were under three years; 60 in the Roman Catholic, of which 26 were under three years; and 4 in the Jewish cemeteries.

The principal causes of death are recorded as follows: Consumption, 22; heart diseases, 10; croup, 4; diphtheria, 3; diarrhœa, 3; brain diseases, 2; liver diseases, 2; typhus fever, 1; pneumonia, 1; puerperal fever, 1; enteritis, 1; convulsions, 1; scarlet fever, 1; syphilis, 1, etc.; still-born, 7.

The number of deaths from diseases of the heart was unusually large, ten cases being reported for the month.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

The Prevailing Epidemic in the Nor West.

The Chicago Medical Journal for March 1863, contains an interesting communication on an epidemic which has been prevailing in not less than five of the North-Western States. The editors of the Journal, Drs. Brainard and Allen, have added a graphic description of the disease, to the remarks of their correspondent. Considering the importance of the subject, notwithstanding our limited space, we take great pleasure in placing the unabridged article before our readers.

"An epidemic has been and is still, to some extent, prevailing in this vicinity, that I should like very much to have your opinion on, and suggestions in regard to, either by letter or through the columns of your "Journal." I diagnosed it, Cerebro-Spinal Meningitis, and I had able counsel who concurred. But that you may judge for yourself, I give you the symptoms. The disease is ushered in with a chill, or shivering, which, the patients say, is not like an ague chill, but a shivering without much sense of coldness. The chill is preceded by intense pains in the head, back of the neck, and in various parts of the body, but occasionally in one of the extremities only. The pain and aching continues with greater or less severity throughout the course of the disease. The chill in some instances lasts twelve hours, but in most not over three or four. Violent vomiting soon sets in, and continues for about twenty-four hours; provided, the patient survives so long. Constipation very obstinate. In some cases, it is impossible to get an evacuation per rectum by cathartics introduced into the stomach. Extremities cold as clay, and very difficult to warm for a day or two. Pulse weak, but not much accelerated.—Tongue little, if at all coated, but of a peculiar purple or livid color, at first, but in the course of the disease becomes covered with an "ashy" colored coat. In twenty-four or forty-eight hours, sometimes less, an eruption appears; on the face, looking like measles, but on other parts of the body the spots are much larger and extremely sensitive, the slightest touch often causing the patient to awake from a sound sleep with a cry of pain. In a few days the patient becomes sore all over, and the joints so stiff, that it is with great pain that he can be moved at all. In some cases, the spots, at first, are of a dark purple, almost black color, in others scarlet, but soon turn dark; these are the most favorable cases for recovery. The pupils are dilated, the left one most, and generally the right side is totally or partially paralyzed—some patients become deaf, dumb, or blind, or all three together, and one, though convalescent for over two weeks, cannot yet speak. Most of those attacked are delirious, but the delirium is not active. Out of thirteen cases treated by myself five died, and another died without treatment. There have been no new cases for more than a week. Death occurred in less than twelve hours in three of the cases. The treatment was actively stimulant and tonic, irritants to the spine, in two cases blisters — and bathing with hot brandy and capsicum. The result was not very flattering, but my experience has brought me to the conclusion, that the only hope of saving life, as the disease occurred here, is prompt, active and powerful stimulation, followed with tonics.—The locality in which the disease occurred is on rolling prairie. With one or two exceptions, those attacked did not have chills last fall, so that lingering intermittents could not have been the cause of the attack.

There has been more rain and mud here this winter than for many years. The consequent dampness of the atmosphere may have been an exciting cause.

Yours Respectfully,
Boswell Ward.

The following remarks on this subject are appended by the Editors of the *Chicago Medical Journal.*

This is one of a large number of letters received on the same subject during the last season. The accounts given by correspondents are very similar, although the incursions of the disease have been observed over not less than five States of the North west.

Of it, very little is found in the text books—nevertheless, it may be said to be well known to many in the profession. Well known to the extent at least of diagnosis—unfortunately, not yet very well known so far as reliable therapeutics are concerned.

It occurs both in the sporadic and epidemic forms. Of the former, several well marked cases have been brought to our notice in this city quite recently; of the latter, many of the interior towns have afforded sad evidences.

Although having the termination *itis* to its technical appellation, it is far from being an inflammatory affection, in the ordinary acceptation of the phrase. There is a modification of the nutrition in the cerebro-spinal substance, with often resulting destruction of the tissues, but the changes are more like those ensuing in typh diseases or cholera than active inflammation.

In observing the phenomena presented, we can scarcely avoid the belief that they are caused by some specific *materies morbi*, and yet it is pretty clear that this must have been generated within each system by coincidence of external causes operating upon it. The causes operating without — the poison generated within. Particular stages of the disease present phenomena strikingly like those resulting from uræmic poisoning.

According to our own observation, it is more likely to occur in winters with a variable temperature—where a few days of intense cold are rapidly followed by days of thaw, mud and rain. Neither uniformly cold nor warm weather are so likely to engender it.

It does not seem to select those previously debilitated by disease in preference to the robust. It does not select any particular age or sex, neither are any exempt. Nor does it seem to be influenced materially by localities—those upon the highlands and those upon the lowlands—the rich and the poor are quite impartially seized.

The methods of attack are various, and yet all coincide in representing a potent influence upon the nervous system. More commonly, this is manifested by distinct rigor, gradually passing to general coldness, absence of pulse in the extremities and coma, very like that of pernicious remittent; and this without any marked local symptoms.

At other times *pain* is the prominent symptom — pain more frequently in the occipital or nuchal region, but very often in other parts of the head, in the shoulders, trunk, hips or extremities. This pain is usually sharply circumscribed within a small compass, but may extend. It becomes more and more intense, until the patient becomes delirious, apparently from its severity, and then ultimates in coma, after which the disease takes the same course as when ushered in by the chill. Or it may speedily be replaced by the rigor.

The *suddenness of the attack* and rapid progress to grave symptoms, are very characteristic.

The delirium which ensues upon the pain, or which supervenes upon the coma, is of the most violent character, incessant jactitation, and often vociferous and incoherent cries.

Sometimes at the very outset, but usually not until the lapse of several hours — from three to twenty-four — there occurs a peculiar discoloration or eruption upon the surface, but exceedingly variable in its form. Sometimes it consists of a simple petechial point, and again of a dark discoloration of a large surface like ecchymosis, or rather the subcutaneous extravasation of purpura. More frequently there is no elevation of the cutis, but occasionally there is an elevation of the epidermis, like bullæ, with thin, dark sauious contents.

We have never seen it look like the eruption of measles, as suggested by our correspondent, but very often somewhat like the mulberry rash of continued fever.

The form of the eruption is not diagnostic. Mainly, the evidences presented by it are those of a diffluent, disintegrated state of the blood. The prognosis is modified by the brightness or lividity of the hue of the discoloration.

The eruption, or discoloration, is not always present, but so frequently as to well entitle the disease to its popular name—" spotted fever."

Among the most remarkable symptoms may be mentioned the persistent tonic contraction of the muscles of the back of the neck, sometimes deepening into opisthotonos; convulsions; paralysis, particularly of the optic and auditory nerves; remarkable soreness of the surface and joints to touch or motion.

There may be intolerance of light and sound, but oftener the special nerves involved are paralyzed. While there is the most excruciating hyperæsthesia of the general surface, the finger may be placed on the cornea with no flinching by the patient.

The vocal muscles may be paralyzed, as also those of deglutition, but these forms are more rare. Hemiplegia is not infrequent; or the paralysis may be confined to a single extremity. Strabismus, unequal size of the pupils, twitching of the facial muscles, &c., &c., are incidental symptoms.

The pulse, at the outset, is small, thready, tremulous, irregular, soft, and speedily lost at the wrist. On the occurrence of reaction or remission it increases in fullness and force. About always during the primary stage it is slower, but during reaction it may run up to 120 or 150.

The skin in most cases is dry as well as cold, but in perhaps 25 per cent. of the cases it is moist. In all cases it is quite variable in this respect at different hours of the day.

The tongue is more or less enlarged and flabby, with indentations of the teeth upon its edges. It is pale and moist, with a coating of a pale ash or white color passing to yellow and brown, but this is not distinctive.

Nausea and vomiting are occasional, but not constant symptoms, the matters thrown up being the normal contents of the stomach, or, in bad cases, decomposed blood, bile, mucus, &c.

The bowels are variable. Some cases are natural, in others there is obstinate constipation, and in others still, severe diarrhœa with discharges of grumous and offensive matters.

The respiration is ordinarily laborious and irregular, sighing, and perhaps stertorous, more frequent than normal, while consciousness continues, but becoming slower with advancing coma.

The urine is generally scanty, depositing a plentiful sediment intermixed with ropy mucus, and disorganized blood corpuscles. But in some instances, we have known the urine abundant and of low specific gravity.

The first stage may terminate in death in a few hours, or, after an interval of from six to twenty-four; then may occur a marked remission of the symptoms—a very deceptive remission, often leading both physician and patient to believe the difficulty pretty much over. Supervening upon the remission rapidly, or it may be upon a gradual awakening from the comatose state, there will be intense febrile excitement, great heat of the surface, rapidity and strong tension of the pulse, arterial throbbings, flushed face, turgidity of the conjunctiva, with extreme thirst, &c. This is liable to be attended with the highest grade of delirium and frantic muscular jactitation, requiring several attendants perhaps, to keep the patient in his bed.

The delirium may, after a while, merge in coma, apparently from utter exhaustion; or it may gradually moderate in violence and pass into the low muttering character, with subsultus, &c., the patient being laid upon his back with the extremities fixed and painful to touch and motion; or in some cases turned rather to the prone position, with, in either case, the posterior muscles of the neck fixed rigidly, drawing the head strongly backwards. Occasionally it is drawn laterally backwards, but is always in a state of rigid immobility.

In this stage the bowels are usually inactive and the urine either scanty or wholly retained. The skin is hot, but not infrequently reeking with a peculiarly offensive perspiration. Irregular or partial sweats are very common. Convulsions, paralysis, pain, and other evidences of central nervous disorder, are largely aggravated.

The patient may die in this stage, or the disease may pass on with irregular febrile phenomena into the low, lingering typhoid stage, stretching over even forty or sixty days before the establishment of a tedious convalescence. The low fever which so often supervenes upon severe attacks of Asiatic Cholera much resembles it.

From the outset there will be presented intermingled symptoms, according to the involvement of particular organs in secondary lesion. The lungs are especially liable to severe, or even fatal disorder, so much so indeed, as by the gravity of its manifestations almost entirely to mask the original disease.

Dr. Condie, in a note to the American edition of Watson's Practice, includes a description of this form under the head Typhoid Pneumonia, but it is unnecessary to say that the disease described is but the one now under notice with secondary complication. Ulceration of the throat, the writer has observed as a complication in several cases — the destruction of tissue proceeding of itself to an alarming extent.

Above all, Erysipelas is the most dangerous of complications. It is easily kindled upon the slightest abrasion of the surface, and often, without such a nidus, attacks the face and neck, extending to the scalp, or more rarely seizing the extremities. This erysipelatous affection is apt to be exeeedingly destructive to the part attacked, giving rise to foul, sloughing sores, rapidly wearing out the patient by exhaustion.

Some of our friends who have observed this frequent concurrence of erysipelas, have been so struck by it as to believe the disease essentially an erysipelatous inflammation of the cerebro spinal tissues, as also of those organs involved secondarily.

The abdominal viscera sometimes experience the full force of the morbific influence, but in greater part are comparatively little disturbed.

Epistaxis, hæmatorrhœa, hæmatemesis, and hæmaturia are occasionally present to a dangerous extent.

Among the sequela we note, deafness, blindness, partial paralysis of motion, tuberculosis, albuminuria.

Marasmus in both children and adults, and phthisis in the latter are especially common. The constitution seems broken down, and perhaps years elapse before the patient recovers his original vigor.

With regard to *post mortem* appearances there has been much apparent discrepancy of description. But by attention to one single fact this can readily be explained, and that is, the stage of the disease at which death occurred. It is also necessary to separate incidental complications from the primary affection.

If the patient die in the first stage within a few hours from the attack there may be very few signs of local change. The blood will be found settling to dependant portions, and with a loose, gory and diffluent clot. There will be found stasis of blood in the capillaries of the cerebro-spinal meninges, particularly the pia mater and dura mater, rarely of the arachnoid. The superficial vessels of the convolutions will be distended, and those upon the walls of the ventricles likewise full, presenting here and there spots like ecchymosis though more florid in hue. Sections of the cerebral substance will show a similar condition of the blood-vessels, as manifested by the large red points on cutting across them. The medulla oblongata and spinal meninges and cord at the upper part will exhibit similar appearances. The stasis of semi-dissolved blood is so considerable that the grey and white tissues gain a pinkish tinge.

More or less circumscribed softening is found, usually involving the cortical substance of the cerebrum, the inferior surface of the cerebellum, and the floor of the lateral ventricle. In fine, a lessening of the firmness and density of the whole mass is evident on careful inspection. Effusion of discolored serum into the cavities is present now and then to a large amount.

If the case has run on to high reaction, all the results of inflammation may be present. In this case, the arachnoid is apt to be thickened and with loss of its transparency. In the exuded matters are found pus and lymp corpuscles, or the exuded lymph forms a quasi membrane, loose, creamy, and readily broken down, upon the surface or along the course of the large vessels. The greatest quantity is at the base of the brain, and always at the optic commissure. It is also stated to be found on the corpora quadrigemina, the medulla oblongata and around the third pair of nerves where they penetrate the arachnoid membrane. Wherever the exudation takes place it is likely to be stained by the dissolved hæmatin.

In the spinal region, the morbid changes affect mainly the meninges, the substance showing little modification of structure, the most observable change being softening. The exudation, discoloration and softening are most observable about the roots of the cervical nerves.

The thoracic and abdominal lesions present nothing distinctive. Where the lungs become involved there are the ordinary evidences of stasis of blood and effusion, or where the later stage is reached, the usual results of inflammation. The same remark may be made with regard to the intestinal tube.

It is proper to remark, that whilst in about every case there is on *post mortem* some visual evidence of local disease of the cerebro-spinal region, nevertheless, in very many this evidence is very slight. The disease is capable of killing the patient speedily or slowly, and yet leaving behind it no trace of its footsteps. But the only constant changes, when any are present, are in this region. Here, as elsewhere, the facts teach that the immediate molecular changes, upon which life and death depend, are beyond the sphere of either our aided or unaided observation. We necessarily infer their existence, precisely as we infer the reactions of a chemical mixture by observations of results and of things which we can see and handle, and weigh.

In common with many other potent influences which suddenly strike down the powers of life — the cause or causes of this terrible disease may produce at once necræmial symptoms so profound that particular manifestations of the special cause will not take place. We shall see that thus far the diagnosis is not of great importance. Under this condition the most dissimilar causes coincide in effect. Malignant typhus, small-pox, scarlatina, rubeola, diphtheria, Asiatic cholera, erysipelas, pernicious remittent, uræmia, etc., etc., are severally capable of producing this condition.

In this case an overwhelming cause acts especially upon the cerebro-spinal centre, or secondarily, upon other organs. The blood from the beginning is poisoned and scarce living, and death may ensue from this poisoning of the blood, or later from the local changes in the brain and cord, or in other instances, from involvement of other vital organs. The only forms of disease with which it is liable to be confounded are pernicious remittent (congestive fever) and typhus.

Yet, be it observed, in the progress of both these forms, cerebro-spinal changes may occur which render the diagnosis impossible; and this need not be deemed unfortunate, because at the same time it is unnecessary. Since enlightened medical men have ceased to regard diseases as entities, and no longer rely upon a routine treatment, the diagnosis of names has yielded place to the search for causes and conditions; and treatment has been placed upon a broader and more certain basis.

The reader who has carefully noticed the peculiar disturbances of the nervous system and muscular apparatus portrayed in the communication of our correspondent, and further designated in our own remarks, cannot fail to see that they are exceedingly rare in the so-called congestive fever of "malarious" districts. There is no periodicity about it. It cannot be merely a severer form of that fever, for it occurs in districts, indiscriminately, where that fever is known and where it is not. It occurs at a season of the year when pernicious remittent notoriously loses its virulence, and, indeed, is scarcely ever present save in cases which have been especially liable to attacks of periodical disease, and whose constitutions have been broken down by previous disease. Briefly, the paralysis of special sensation and voluntary motion; the hyperæsthesia of the surface and joints, or circumscribed localities; the opisthotonos and convulsions; the petechiæ and vibices; the absence of periodicity, notwithstanding remarkable remissions; locality and times of occurrence; the sequela; these and many other particulars distinguish the disease from "congestive fever" with no difficulty or uncertainty. The influence of Quina is wonderfully diagnostic. In pernicious remittent it is prompt, powerful and certain. It is *the* remedy, if all others were ignored. In the disease under review it is scarcely noticeable in effect, and wholly unreliable—nay—comparatively worthless as a remedy. The "congestive fever" bows beneath its potent influence at once—the "spotted fever" scorns its impression.

Practically, the *physiognomy* of the two diseases is as diverse as the features of strangers.

Nearly the same distinctions separate it from "maculated typhus." It is not a severer form of typh disease, because it is realy developed under those known circumstances which develop the latter. The nervous manifestations at the outset are wholly diverse; the mode of the attack and progress of the case are dissimilar, save that in some cases a low fever follows the primary lesions; but well marked, and indeed some of the very severest, cases are arrested and convalescence occurs without any such secondary fever.

The eruption, or rather extravasation of dissolved blood beneath the skin, is wholly unlike the maculæ of typhus or the roseolar spots of typhoid. Such extravasations do not constitute the peculiar eruption of the typh disease.

Typh fevers are the creation of *ochlesis*, of bad ventilation, filth and improper food. This clearly depends on some unknown meteorological influence, entirely apart from the accumulation of human beings in crowded places; independent of decomposing organic matter; independent of confined air.

It attacks equally all ages, from the infant to the veteran—the out-door laborer and the lady in the parlor.

Presenting some symptoms in common with the typh diseases, its history and its *physiognomy* are as diverse from them as yellow fever is from bilious remittent. To confound them under one denomination, will render it necessary to re-write the history of typhus and make the term as comprehensive as the word *fever*.

It would be a happy circumstance if the treatment were as satisfactorily determined as to the character of the disease. But, as before remarked, this is unhappily not the fact. But much can be done, and many lives saved which without it would certainly be lost.

The proportionate mortality in the early periods of this, as of other pestilential epidemics, is somewhat frightful to contemplate; but there always remains this well established fact that, under about any respectable treatment, the fatality steadily diminishes with time, and the later cases will be quite controllable.

The quacks outside and inside the profession take advantage of this truth, and all ears are speedily stunned by the praises of particular remedies and methods which they go around braying about. "Specifics" for it are as plentiful as for cholera in every city, village and hamlet—but, alas, they fail miserably in the real trial.

Under our own observation has come treatment which ought to make all classes of created things, from angels to jackasses, weep.

We have seen men try to bring on a crisis—the *death crisis* to which we alluded last month—by bloodletting. Others attempt the same thing by emetics and mercurial purges. Steaming is perhaps the most popular method of producing exhaustion of the feeble remaining powers of life. We knew one physician to give upwards of fifty grs. of morphine to a boy within a few hours to relieve him of his terrible pain and suffering. He observed to the writer that "the boy did not die of the disease!" Incalculable quaatities of brandy and quinine have been poured into the stomachs of the comatose; and there is no measurement of the amount of turpentine which has been thrown up *per rectum*.

The whole surface has been parboiled, roasted, and cauterized—What have we not seen done? We have seen the patient wrapped in the skins of animals torn reeking from the still quivering flesh; and have known an ox disembowelled and a tender girl put in the steaming cavity. There is no limit to human creduilty; there is no bound to human assumption. Popular follies are the legitimate offspring of the dogmatic wisdom of some previous age.

Satisfactory treatment remains yet to be discovered. There are no specific remedies as antidotes. Yet experience points to certain things which seem to have done something—perhaps, *post hoc ergo propter hoc* after all.

And first we rank external stimulants. Rubefacients and artificial heat. Whatever will powerfully stimulate the surface especially along the spine and the extremities. This not from any vague idea of internal pressure to be overcome by "determining to the surface," but by promoting tissue change in the parts and thus awakening energy of the circulation, and immediately excretion of effete matters and formation of new blood. The rubefacient becomes thus a general stimulant. With capsicum and mustard, ammonia and terebinthinates, pungent oils and friction—the means are abundant enough, and the practitioner can take his choice. Direct heat is a more questionable remedy from its ultimate sedative impression. The hot water or vapor bath speedily exhaust—still when the surface is dry and rigid, these may be employed for a short time only. The alcoholic vapor bath is often serviceable. A potent stimulant is the application of ice for a few moments and then the alteration of hot epithems—this alteration to be frequently repeated. The intense local pain so often present in the primary stage may occasionally be controlled by large doses of morphia internally, but the amount required is apt to be so excessive that the hypodermic injection at the point of suffering will be found of greater advantage. But from the puncture there is always danger of erysipelas. The same remark applies to vesicants—primarily of excellent service, secondarily there is danger of sloughing sores.

Internally stimulants, boldly, but with due regard to their ultimate effect.

Thus the alcoholic stimulant, of whatever sort, when acting at all is quite disposed to produce the sedative impression or anæsthetic effect—checking tissue metamorphosis, hence the disappointment so frequently experienced on their administeration during the cold stage, or in necræmial cases. The alcohol should be given only in moderate amount and combined with capsicum, piperin, monarda, or similar aramatic stimulants. The Ol. Monarda here, as in Asiatic cholera, will be found quiet efficient. Or Ethereal preparations, especially the Chloric Ether, in full doses with Sp. Cardamou Comp., Carb. Ammon. and Capsic. in full doses, answers well in some cases.

In our experience, the Tincture of Cantharides in full doses, is perha the most valuable of all internal stimulants. From twenty to forty drops every hour, until reaction ensues.

Where there is any appearance of erysipelas, or where there are evidences of dissolution of the blood, as evinced by the deep livid shade of the spots, or by passive hæmorrhages, the Muriated Tincture of Iron should be simultaneously administered. Coinciding with the general effect of the Cantharides, it seems to especially prevent further destruction of the blood and facilitate its repair. Besides, it lessens the tendency of the Cantharides to injure the kidneys and produce strangury. But the awaking of the nervous system and of the excretory energy as shown by this result is scarcely to be considered as other than a favorable omen. Of course, when this occurs, the Cantharides should be replaced by some other stimulant. From ten to twenty drops of the Tincture of Iron should accompany each dose of the Cantharides, and the mixture be largely diluted on exhibition.

If convulsions occur, or pain be dangerously intense, anæsthetics by inhalation may be employed, and we should very much like to try here, as we have not yet had an opportunity, the Protoxide of Nitrogen, or "laughing gas." Theoretically and by analogy of its use in other cases, we believe it would be found an invaluable remedy. Its energetic stimulating power would probably favor speedy reaction.

We have not noticed any especial advantage from Quinine in the first stage, although we have given it in doses varying from two grains to half a drachm every hour. The stimulating effect of the small dose is inappreciable; the sedative and diaphoretic effect of the large dose is objectionable. But when the deceptive remission occurs, we have fancied some benefit was gained by several full doses, at intervals of one or two hours—the sedative effect seemed to lessen the severity of the subsequent exacerbation, although we have found that a hundred grains thus given, would not prevent its access.

At this time, something appears to be gained by relieving the bowels by a moderately stimulating carthartic, particularly when the cold stage has left behind it a decided engorgement of the portal system. By this means the exacerbation is evidently ameliorated, and the tendency to pass afterwards into a low form of fever sensibly lessened. We usually, for this purpose, combine calomel with gamboge, rhubarb and soap, which usually operates efficiently in six or eight hours. Beyond this, or some milder cathartic, we have rarely found it useful to employ purgation. The patient cannot be cured by attempts to turn him inside out with either emetics or cathartics.

If, during the stage of excitement which now follows, the urine becomes tolerably free and charged with its solid constituents, the patient may be reckoned safe, but if it is suppressed the case is one of extreme danger. The practitioner is apt to be deceived by the apparent excitement, and hence to resort to excessive antiphlogistic measures—but this is a dangerous error Collapse impends almost momentarily, and it is necessary to be on guard.

Saline diuretics, very moderate doses of the usual sedatives, and perhaps anodynes, may be used, but bleeding, vomiting and purging, or large doses of sedatives are out of the question. Ablutions with cold water, or the tepid bath, or showering the head, we have found in this case even more useful than in the similar stage of remittent.

When in doubt, our own experience teaches us to say, *stimulate* even here. Destructive changes will thus be prevented, the liability to collapse lessened, and the tendency to tedious low fever, with doubtful final result, abated. But better do nothing than to do wrong or mischief.—*Chicago Med. Journal.*

* * *

The Geographical Distribution of Cancer of the Lip.

BY DR. WILHELM STRICKER.

DR. LOUIS LORTET, of Oullins in the Department of the Rhone, in his Essai monographique sur le prétendu cancroide labial (Paris, 1861, 4to), has made use of his sources of information not only in an unusually complete manner, but has collected also, for a purpose which we principally wish to communicate, valuable information in writing, which, however, is not sufficient for the farther investigation of several points. This Archiv has proved itself so excellent an instrument in the investigations of the Editor upon Lepra, that we do not hesitate in this way to bring the wish of the author before German Surgeons. His questions relate principally to: 1st, the relative frequency; 2d, the number of operations compared with the whole number of those operated upon; 3d, the frequency of the disease in relation to an elevated or low residence; 4th, its frequency in connection with occupation; 5th, with nationality; 6th, with sex; 7th, with the period of life; 8th, with the character of the diet. Answers to these questions the author desires should be sent to his father, Dr. P. Lortet, Lyon, Quai Fulchiron 24.

We now turn to the work of L. Lortet.

Ætiology.

Predisposing Causes.

A. *Sex.* For a long time it has been observed, that cancer of the lip is a disease which particularly attacks the male sex. According to the various localities, women form 1-20 to 1-5 of those affected, as the following list shows.

Lebert (Paris) 15 males, 3 females. (Traite des mal. cancér. Paris, 1851.)
Gault 20 M., 1 F.
Bertin (Montpellier) 24 M., 3 F.

Melzer (Laibach) 127 M., 15 F. (Jenaische Annalen, 1850. II. 480.)
Heurteaux (Paris) 69 M., 10 F. (These du Cancroide. Paris, 1860.
Bruns (Tubingen) 50 M., 5 F. (Handb. der Prakt. Chir. II. 1859.)

Barrier (Gaz. Méd. de Lyon, 1852, u. Schriftl. Mitthlg.) had between the years 1850 and 1855 observed 71 cases, of which 62 were males, and 9 females; 59 affected the under and 12 the upper lip, of which latter number 6 were males and 6 females.

Of the 181 collected by Desgranges (Gaz. Hebdomadaire, 1854) 158 were males, 23 females: 153 affected the under, 22 the upper lip and 6 the corner of the mouth.

The total of all these numbers gives to 527 men 69 women, or a proportion of 7 6-10 to 1.

B. *Age.* Among 252 cases only one was below the age of 20 years, a girl 16 years old. It is only after the 30th year that the disease increases in frequency and continually augments up to the greatest age, if we compare the number of cases with the number of those living at certain periods of life. Of course the absolute number of cases of cancer of the lip diminishes at a great age, since in the 60th year there is living only the 5th, in the 70th the 8th, in the 75th the 12th in the 85th the 93d part of those who are born, and moreover very aged men seldom submit to an operation.

Lebert, among 17 cases of the disease, found 2 from 30—35, 1 from 35—40, 2 from 40—45, 7 from 45—50, 2 from 50—55, 3 from 60—65 years old.

The first beginning of the disease, Bruns, in his 55 cases, found was noticed by 2 between 20 and 30, by 9 between 30 and 40, by 11 between 40 and 50, by 13 between 50 and 60, by 15 between 60 and 70, and by 5 between 70 and 80 years old.

Among the 260 cases collected at the Hotel Dieu in Lyon, 13 occurred at the 56th, 12 at the 50th 11 at the 42d, 58, 59th, 60th and 62d, 10 at the 42d year, and so forth, which compared with the single cases of 1 at 16, 1 at 29 and 32, 2 at 33 years old, demonstrates satisfactorily its predominance at the advanced periods of life.

C. *Temperament, Occupation.* Dr. Lortet thinks himself authorized in believing that the sanguine temperament predisposes to this disease. Most of those affected with it, whom he has seen, were blonds, of a very rosy complexion, with strongly developed capillaries. As to the greater proportion of country people affected, Lortet agrees with Bruns. Among the 181 cases collected by himself, Lortet found 107 from the country, 12 weavers, 4 each of carpenters, stonemasons, shoemakers and proprietors, 2 each of wagoners, woodsawyers and servants, and 19 without definite occupation. This preponderating number of peasants by no means indicates an excess of rural population in the departments to which the patients belonged, for out of a total population of 3,924,000, only 1,095,000 were peasants, or somewhat more than a quarter, whereas the number of peasants thus affected amounts to more than five-ninths.

D. *Clinical and Geographical Relations; Hereditability.* Heurteoux has collected 11 cases in which the disease was inherited, to which Lortet thinks he may add 4 or 5 more, although he considers this number far too small to warrant any conclusions whatever.

More numerous, although still not sufficient also, is the material for the determination of the geographical distribution of the disease.

In the neighborhood of Lyon, among 3217 "bloody" operations performed in the period from 1850—1860, 181 cases of cancer of the lip occurred, which were distributed among the departments as follows: Loire 29, Upper Loire 20, Rhone 25, Isere 14, Ain 13, Drome 11, Saone and Loire 10, Jura 9, and so on; a division to which Lortet himself attaches little importance, and which, in fact, is of no value without a knowledge of the contingent furnished by each district to the aggregate of the patients in Lyon.

In Sweden, according to the report of the chief surgeon of the great hospital at Stockholm, Rosander, in 1860, the disease appears to be very rare. "From 1850 to 1859, out of 2200 operations there were 17 performed for 'cancer of the face,' upon 16 persons, 12 males and 4 females, all peasants from the neighborhood of the city. Upon the mountains the disease appears to be still less frequent than in the plains. The other hospitals in Sweden are small, so that the whole number of operations in them would scarcely exceed those performed in Stockholm."

There occurs, therefore, in Lyon 1 operation for cancer of the lip in 17, in Stockholm 1 in 137, or allowing for cases of "cancer of the face" upon other portions than the lips, 1 in about 200 operations.

According to a letter from Dr. Ludwig Benjamin, in Hamburg there were only two cases of the disease in the period of 1854—1857, 1 in 1854 and 1 in 1856.

In Prussia, also, the affection appears to be very rare. According to Melzer, on the other hand, there occurred in the hospital at Laibach in 62 years among 27,800 patients, 453 cases of cancer, 142 of which were of the lips.

As to Switzerland, communications were received from Prof. Voigt, of Berne, Dr. Socin and Prof. Jung, in Basle, in 1860, from which it appears that the disease is quite frequent about Berne and Zurich, but rare in Basle, where in 38 years only 3 cases were observed in the surgical clinic.

According to a letter received from Bertin (1860), there were 895 operations performed at Montpellier during the period of 1851—1857, 33 of which were for cancer of the lip. Berrut writes, that in the year 1857 1607 cases were treated in the surgical department at Marseilles, 3 for this disease only, all of the lower lip.

Dr. Lindermayer, physician in Athens since the Grecian revolution, had observed only 2 cases up to 1860, and the physicians of the country had seen it very seldom.

Dr. Ph. Faure, who has travelled many years in Asia Minor, Syria, Palestine, Mesopotamia, Egypt and Nubia, found this disease, like cancerous affections in general, almost unknown in these regions.

Dr. Heinrich Barth also, the celebrated African traveler, states, in his written communications to the author, that, although consulted by innumerable patients, he saw but one case of cancer in a man, but none in a woman. In the tribe of Beni-Meluk, however, upon the Niger, several days journey east from Timbuctoo, which indeed, is not purely African, but crossed with Barbary and Arabia, he met with an affection of the skin, which bore some resemblance to cancer of the lip.

Livingston and Lautre have never met with the disease among the nations of South Africa. The latter, who spent many years among the Bassutos, a community north of Cape Colony, did not see a single case of cancer of the face, which is by no means uncommon among the whites of Cape Colony.

From the facts presented, although imperfect, it appears, then, that cancer of the lip is of most frequent occurrence in Central Europe, which, to be sure, is also the best known region. As to the various agents accused of producing it—

Tobacco stands in the first rank, and particularly the smoking from a short pipe, the pressure of the tube of which upon the under lip was considered, as far back as 1795, by Sömmering, as the cause of cancer of the lip. Rigal and Bonnet believe it to be caused by the irritation which the teeth, injured by the stem, exercise upon the lips. Rechnitz observes that cancer of the lip is so generally prevalent in Hungary on account of a very strong tobacco, which, being either chewed or smoked from a short pipe, covers the lip with an acrid juice. Gunter states, that nearly all those he operated upon were passionately fond of smoking, and that he often found them the second or third day secretly smoking behind the bed-curtains. Boussion mentions 49 cases of the disease, all of which were observed in smokers. On the other hand, Bardeleben, in Greifswald, has operated upon many patients who never smoked; also Fleury, in Clermont. Bruns found among 55 operated upon only 10 great smokers, and one of these, in whom the seat of the disease was at the left corner of the mouth, had always held the pipe in the right corner. The experience of Hurteaux was the same; for of the 9 cases which he observed, 4 had never smoked, and among the 5 smokers in 2 only did the disease affect that portion where the pipe generally rests. Lortet, from his own experience in Hôtel Dieu at Lyon, could perceive no evidence of influence of smoking. With regard to the statement of Melzer, whose accusation of smoking without satisfactory proof has been adopted in various surgical works as an universally accepted fact, Bruns has demonstrated that the pretended frequency of the disease in Krain is in no way borne out by the figures, which go to show rather that it is twice as frequent in the vicinity of Tübingen as in Krain. Lemarchand, in Finistère, where nearly all the women smoke short pipes, has seen, according to Hurteaux, nearly 100 cases of cancer of the lip in men, and not a single one in a woman. We have seen above, that in the Orient, where nearly everybody smokes, the disease does not occur, and it will be necessary to collect still more geographical and statistical facts before a definite judgment as to its ætiological relations can be formed. The material which I have obtained from the Reports of the Imperial General Hospital of Vienna for the years 1857, 1858 and 1860, is somewhat deficient, but demonstrates, nevertheless, the preference of the disease for the under lip and its preponderence in the male sex, and gives the relative number of the various forms of epithelial cancer in the whole number of patients.

Year.	Whole No. of patients.	Whole No. of operations.	No. of cases of epithelial cancer.	Cases of cancer of the lip.			Seat of disease.			No. of operations for cancer of the lip.
				Total.	M.	F.	Lower lip.	Upper lip.	Both.	
1857	24.943 (15,699 M., 9,244 F.)	355	31 (24 M., 7 F.)	12	12	—	11		1	5
1858	25,906 (15.268 M., 9.338 F.)	399	57 (48 M., 9 F.)	14	13	1	12	1	1	9
1860	21.557 (13.622 M., 7.935 F.)	325	29 (18 M., 11 F.)	15	—	—	10	5	—	7

—*Boston Medical and Surgical Journal.*

Belladonna in Epilepsy.

At the Hospital for the Epileptic and Paralyzed, belladonna and its alkaloid atropia, are still in favor as remedies for epilepsy. Under these remedies most patients with epilepsy, especially if they suffer much between the paroxysms, are benefited.

In treating epilepsy we must remember that, although in many cases we may not be able to cure, we can very often diminish the number of fits; and even if we cannot do that, the patient's general condition is often much improved. Many patients attend the Hospital who have had fits for very many years, and though they have no hope of being cured, they, nevertheless, experience great benefit, and are rendered capable of resuming a comparatively active life. Although this is not a cure, it is the next best thing to it.

The prescription generally used is—Extract of belladonna a quarter of a grain, quinine one grain, in a pill three times a day. Of atropine, one 1-120 of a grain is given three times a day. Of both, the dose is gradually increased.

Although giving in increased doses, they are rarely observed to produce, in epilepsy, much physiological effect. Sometimes, however, the patients complain of dryness in the throat, and of defective sight. We think it will noticed that patients with dark eyes suffer more from it, and that these patients are often hypermetropic.

When the sight is affected by belladonna or atropine, it is because the ciliary muscle is paralyzed partially or totally, and hence that the power of accommodation is impaired, or altogether lost. It is not likely that it is due to dilatation of the pupil, as in congenital iridermia the accommodation is good, and in a case recorded by Graefe, in which the whole of the iris was removed by operation, it remains perfect. It was lost, however, when atropine was put into the eye.

Patients, of course, complain a good deal when their sight is impaired, however little, by any course of treatment, but they can be assured that the defect is only temporary. In some cases of cataract belladonna has been used for years without injury to the eyes, and without losing its powers.

In no case have we noticed dulness of hearing to be produced by this drug. Very likely there may be some slight impairment of hearing which the patient does not notice. Very often there is tinnitus aurium, and some little defect of hearing attending it, but this is common in epilepsy whether belladonna be given or not. We have not noticed that patients have complained of increase of deafness under its use. If a solution of atropine were dropped into the ear it might then paralyze the small muscles of the ear, and produce defective accommodation of sound, if such a phrase is allowable.

Another method in which Dr. Brown-Séquard uses atropine in epilepsy is to inject a solution of it and morphia into the part from which an aura starts. This was done in several cases with excellent results. A solution containing one sixtieth of a grain of atropine and a quarter of a grain of morphia is injected with Wood's syringe. In the several cases in which it was used it did not produce any immediate effects in the patients, and no giddiness &c. The operation is not painful.

It is supposed that belladonna acts on the bloodvessels producing contraction. Ergot, also, Dr. Brown-Séquard believes, has this property; and hence their use is local inflammatory conditions of the brain and spinal cord. Ergot, he believes, has a greater action on the vessels of the spinal cord, and belladonna on those of the brain. In paraplegia from myelitis, a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna is given three times a day. The action of belladonna in arresting the flow of milk, and in causing dryness of the throat, may be explained also on the hypothesis of its diminishing the supply of blood to those parts.—*Boston Med. and Surg. Journal.*

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CHILDREN'S HOSPITAL, PHILADELPHIA.—We have received the Sixth Annual Report of this very useful institution, which shows that its benefits are yearly being extended to an increased number of patients. This Hospital was founded in 1855, and since that period it has received as indoor patients 658 children, and advice and medicine have been given to 6,800 outdoor patients.

The want of a larger building, and one in a more open situation, where the little patients can have the benefits of pure air, sunshine, and ample space for exercise, is strongly pointed out, and we trust our charitable community will hasten to supply the requisite mean for the purpose.

A building fund has been created, but it is as yet very small, amounting to only 3,085. This institution deserves the most active sympathies and pecuniary support of the charitable, and we can scarcely believe that it will fail to obtain both—*Med. News.*

Paracentesis Thoracis: A Resume of Twelve Years Experience.

BY HENRY I. BOWDITCH, M. D.

(Read before the Boston Society of Medical Observation.)

In the *American Journal of the Medical Sciences*, April, 1852, I published an article on Paracentesis Thoracis, with cases. In January, 1854, I gave in the *American Medical Monthly* an analysis of twenty-five cases of the same. Still later, I made further statements on the subject in the *Boston Med. and Surg. Journal*, 1857, and now I wish to give to the Society a brief *resume* of the principal results of the operation, as performed 150 times on 75 persons during a period of nearly twelve years, viz., from April 17, 1850, to Dec. 16, 1861.

During the above period I have operated 150 times on 75 persons, and have seen other gentlemen operate on 10 more, making 160 operations on 85 persons.

Inocuousness of the operation.—I have never seen the least *permanent* evil resulting from any operation, and *only the slightest temporary* difficulties, such as pain, slight dyspnœa, stricture, or cough, etc. This, I think, shows the inocuousness of the operation by means of the exploring trocar and suction pump, as suggested by Dr. Wyman.

Frequency of the Operation.—One lady (case formerly reported) I tapped nine times during eight and a half months; commencing when she was four and a half months pregnant, and in whom the orthopnœa was, several times, so great that death, I have no doubt, would have supervened within twenty-four hours, if the operation had not been performed. She is now tolerably well, but with a contracted chest, as is usual in chronic pleurisy.

In striking contrast with this case, as it regards the frequency of the operation, while resembling it in the number of times it was performed, was the unique case of an elderly man, very recently under my care, and in which I tapped eight times in six weeks! The patient himself, a physician, earnestly and even solemnly demanded of me the operation as a mere means of relief to intense distress. As he jocosely remarked on one occasion, he considered it one of his "luxuries."

Cases in which the patient recovered wholly.—Twenty-nine out of the seventy-five patients got wholly well, apparently in consequence, chiefly, of the operation. The operation was performed generally when severe symptoms were manifest, and I was called in consultation. In a few, a great quantity of fluid was recognized by the physical signs alone, the rational having been slight; but, as the disease was chronic, an operation was deemed necessary. In all these cases, the operations seemed the first step towards a cure.

The character of the fluid and its influence on the prognosis.—In 26 out of the 75 serum was found; and 21 of these patients got wholly well. If after the first operation the fluid becomes purulent, an almost certain fatal prognosis should be made. I have seen six such cases. Four of the patients died, two were lost sight of, but, when last seen, were failing.

Pus was found at the *first* operation in twenty-four cases. Once, it was of the consistence of honey, but I easily drew it through the exploring tube. Seven of these patients recovered wholly; seven died; nine were relieved one or many times; but they had either a long and tedious illness, terminating usually in phthisis, or a fistulous opening, or a still doubtful result.

A *sanguinolent fluid* at the first puncture (and by that I mean a dark red thin fluid, evidently stained with blood, though not coagulating) I consider almost certainly fatal, and a consequence of some malignant disease of the lung or pleura.

There were seven of such cases. In six the patients died. In one there was a doubtful result, but apparently fatal tendencies were commencing. If the fluid is found sanguinolent at the second or any subsequent puncture, I deem it of comparatively *little* importance towards the prognosis.

A mixture of *bloody purulent fluid* at the first operation is usually fatal. Three cases, all fatal, occurred.

A *fetid gangrenous* fluid is very rare, only one case having occurred, and that fatal; but in this case infinite relief from horrible orthopnœa was obtained, and it never returned, though the patient sunk and died in a few days. Grangrenous pleura was found.

I have operated once in *pneumo-hydrothorax* with temporary relief and comparative ease for several days. Many theoretical objections may be urged against the operation in such a case. To such objections I have simply to answer that, as the operation can do no harm and may give much relief, I shall operate again in any case where the dyspnœa may be so great as to require it.

Cases where no fluid is obtained.—Finally, in seven cases I got no fluid. These cases occurred usually in the earlier operations, and the failure was often owing, I have no doubt, to the cautious and slow manner with which I plunged the trocar between the ribs, carrying thus the false membrane of the pleura costalis before the instrument instead of piercing it; so that a valve was really formed over the end of the canula. At other times, I have little doubt that an error of diagnosis was made, and that instead of a fluid there was simply an unexpanded lung and thick false membranes on the pleura, causing as much dullness on percussion and absence of respiration as a fluid would have done. The differential diagnosis of the two was not, at first, quite so easy as it is now. Inspection usually is the test between the two conditions; the intercostals being distinct, and depressed when a membrane exists; but very indistinct and level with the ribs, or, possibly prominent, when a fluid occupies the chest.

Once an immense tumour occupied and uniformly distended one pleural cavity, and in its course presented all the phenomena, natural and physical, of simple pleurisy. I tapped three times, viz.: at the back, side and front, at the same visit. No evil followed.

A member of this society asked me my experience as to the good results or otherwise in operations on the right side; observing, at the same time, that one European writer (Trousseau?) contended that pleurisy of the right side is often or always tuberculous. I could not answer definitely, although my impressions were against the truth of the assertion. On referring to the brief summaries, and not to the original notes of my cases, where I find the sides named in 25 cases, I find that in these the operation was performed with the following results:

	PLEURISY OF	
	Right side.	Left side.
Death	4 times.	5 times.
Cure entire, without symptoms of phthisis, except in one, but pleurisy was cured in that	9 "	4 "
Doubtful result	1 "	2 "
	14	11

These data do not exactly answer the question proposed; but if tubercles always or more frequently exist in pleurisy of the right side, we should, *a* *priori*, anticipate more unfortunate terminations of the operation of the paracentesis of the right than of the left side. My experience proves exactly the reverse, and may be expressed, if deduced from the above table, as follows:

Of 25 cases, 14 were of the right side, 11 of the left. Of the 14 of the right side, only one person is mentioned as having tubercles, and in that the pleurisy was cured and the pulmonary symptoms mitigated.

Of the 14 persons tapped in right side, 28.57 per cent. died; 64.28 per cent. were cured, and 7.14 per cent. remained doubtful. Whereas, of the 11 cases of the left side, 45.45 per cent. died, 36.36 got well, 18.18 were doubtful.

In other words, twice as many have got well from tapping the right as the left; and only half as many have had doubtful results from operations on the right, as in those where the left side has been tapped.

Hereafter, if my cases are any criterion wherefrom to judge, I shall regard an operation on the right side as much more favorable than one on the left; which I can hardly think would be the case were all right side pleurisies tuberculous.

When shall we operate?—Experience teaches me to operate in every case, however recent or chronic may be the attack, provided there is permanent or occasional dyspnœa of a severe character, evidently due to the fluid. I have, of course, more hope of doing good where the disease has not been of too long duration; is uncomplicated with phthisis, or any other disease, and where, moreover, the amount of fluid seems directly the cause of the trouble. I also deem it best to operate in any, even latent cases, where the pleural cavity gets full of fluid; and if, after a reasonable amount of treatment, the fluid does not diminish.

Where shall we operate?—The point originally chosen by Dr. Wyman and myself, viz.: in a line let fall from the lower angle of the scapula, and between the ninth and tenth ribs, I deem the most appropriate point at which to make a puncture. I have, however, tapped under the axilla, or in the breast, where the case seemed to require it. In selecting the precise intercostal space, on the back, I usually choose one about an inch and a half higher than the line, on a level with the lowest point at which respiratory murmur can be heard in the healthy lung of the other pleural cavity.

I never wait until pointing commences; for then I am sure that pus will be found. If pointing without opening has commenced, I do not necessarily tap in that place, as recommended by the older surgeons, but seek the most depending point in the chest. While thus desiring to operate before a *local* distension shows itself, I dislike or refuse to tap where there is contraction of the intercostal muscles; and I am certain of getting fluid only where there is distension or flattening of the same.

Objections to the operation.—One word on the objections to the operation: "We may puncture the lung." "We may let air into the pleura." "We may by our strong suction injure the lung." "The instrument often fails to operate." "The connecting tube between the pump and the trocar collapses, and thus checks the flow of liquid." "The liquid may be too thick, and cannot be drawn through the small canula." "We may excite inflammation of the pleura." "The operation is useless, because non-tubercular cases will get well without; tubercular will die in spite of it," &c. &c.

One and all of these objections are to me, with the experience I have had, simply absurd. Let any man have good instruments and manage them skilfully on proper cases, and he will agree to the truth of what I state.

The operation, like everything else in all the departments of human life, is imperfect. It cannot cure all. But it has relieved many, and will continue to do so, if surgeons will use it; it has been the prominent cause of relief in many more, and will be so hereafter, if men will theorize less and act more. It has been the sole means of saving life, I am sure, in a few of my cases; and I know some patients have died within the last few years, in New England, as I believe, for want of it, under the care of others.

It is certainly inocuous, and give so little pain, compared with the relief that it affords, that patients have begged for it to be repeated again and again, as a mere matter of relief. In my opinion it ought never again to be allowed to fall into disuse by the profession. I regard any man who allows a patient to die of dyspnœa from pleuritic effusion, however great may be the complications with other diseases of head, chest, or abdomen, as in the dilemma of him who is either wilfully neglectful of some of the means of relief or cure, now by experience proved to be always at hand, or ignorant of the simple and beautiful operation suggested by Dr. Wyman. To a certain extent I deem my connection with the operation somewhat providential. I had seen, in the earlier years of my practice, men die with sudden dyspnœa, or, after months of obscure disease, die with one pleural cavity filled with serum, and not a particle of other disease; and, finally, I have seen tubercular phthisis follow, after months of debility, from what was simple pleurisy at first.

Having no surgical tastes myself, shrinking from the simplest operations, and doing nothing of the kind save when compelled to do so. I at times urged surgeons to operate. They declined, and men died. Finally, in cases where I had control, I took the responsibility, and asked the surgeons to do the manual, they were more accustomed to than I was. Their plan was incision and dissection down to the pleura, and a suppurating wound as a consequence, a long, painful operation. At last Dr. Wyman's instrument and method came to my notice. I seized upon them as those I had long sought for. As Dr. Wyman and I were the only believers in the operation, it devolved often upon me. The result is the experience which I have given above. And now, as I have often said, I would as readily puncture the chest as I would draw a tooth, or vaccinate a child.—*American Journal of Medical Sciences.*

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MORBIFIC FERMENTATIONS AND THEIR TREATMENT.—In the *British Medical Journal* (Jan. 3, 1863) it is stated that M. BURGGRAEVE has put into practice the theory of Dr. Polli—the employment of the sulphites in supposed cases of morbid ferments in the blood. M. Burggraeve has communicated to the Belgian Academy of Medicine his experience in the use of these agents in cases of wounds, abcesses, and burns, The sulphite of magnesia is administered internally—one *gramme* (fifteen grains), in a glass of sugared water four or six times a day. The sulphite of soda is employed externally, in lotions, etc. It produces, we are told, immediate local anæsthesia, which is particularly appreciated in burns, and allows of their being dressed and cauterized without pain. In sixty-five cases of wounds thus treated the effects produced were immediate; the wounds improved and became of a healthy colour; active granulation took place; the pus was scanty, inoderous, and tough as sluten. The application thus also acted as a disinfectant.

Dr. LYELL, of Fifeshire, in a letter in this last named journal (Jan. 31, 1863), states that he has been induced by the experiments of Dr. Polli to try the sulphite of soda in diphtheria, and the improvement after the use of the salt was very marked. He dissolved half an ounce of the sulphite of soda in four ounces of water, and gave the solution in doses of a table spoonfull every four or six hours.

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

V.—THE DOGMATISTS AND THE EMPIRICS.

THE predominating philosophy of an epoch has always had a marked influence on every department of contemporaneous knowledge. "The progress of every science," says Buckle,* "is affected more by the scheme according to which it is cultivated, than by the actual ability of the cultivators themselves. If they who travel in an unknown country spend their force in running on the wrong road, they will miss the point at which they aim, and perchance may faint and fall by the way."

The history of medicine furnishes abundant proof of the correctness of this assertion. The natural propensity of ambitious minds to theorize, their impatience to solve questions, and their anxiety to establish their particular dogmas as the *ne plus ultra* of human knowledge, led to the different systems of the Rational school. The deductive method, which, apparently, gave immediate results, which saved the toil of slow investigation, and allowed free scope to the imagination, suited well the quick and speculative mind of the ancient Greeks.

But this method is ill adapted to the study and progress of the physical sciences, especially in their early stages. They are the slow production of time and patient investigation, and require for their perfection the well directed labor of successive generations. "*Medicina non ingenii humani partus, sed temporis filia.*" (Baglivi.) The Dogmatists, however, entertaining a different opinion, eagerly adopted the Aristotelian system of generalization; and *a priori* theories became so numerous, that it was difficult to understand not only the subtleties, but also the differences which distinguished them.

It may be easily conceived that a philosophic method which left so vast a field to imagination and hypotheses, attracted numerous medical votaries; and false as were the conceptions and principles to which it gave birth, they were, nevertheless, made to serve as a basis for practice.

At the remote period in which the Dogmatists flourished, anatomy and physiology were still in their infancy, and the knowledge of physics and chemistry was extremely limited. Herophilus and Erasistratus, as we have already seen, had diligently applied themselves to the study of anatomy, but their disciples did not follow the lead which had been opened for them, and although Alexandria continued to retain the reputation of being the first school in the world, the advantage which had given her that celebrity was neglected, and dissections of the human body became gradually less frequent, until they fell altogether into desuetude, about a century after the Christian era. The Dogmatists, while advocating the importance of these branches, neglected them, because too tedious and difficult. They found it easier to follow the impulses of imagination, and to submit every thing not to the sanction of experience, but to the criterion of subtle reasoning.

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* History of Civilization in England. Appleton's ed. New York. 1860. Vol. 1. p. 646.

They did not hesitate to profess most positive opinions on the organs and functions of digestion and generation, on the brain, the heart, the lungs, the liver, etc., all of which were but vaguely understood by them. Clinical observations occupied them less than researches into the origin of living bodies—the explanation of phenomena produced by the play of their organs, and the determination of the nature and causes of disease.

In therapeutics, they endeavored to adapt the remedies they employed to their hypothetical opinions. Some like the Pythagoreans, placing the seat of the soul in the blood, proscribed bleeding; others burthened their patients with warm coverings during violent fevers, and made them suffer the torments of thirst, in order to prepare them, as they said, for the crisis, by promoting perspiration; while others again condemned diaphoretics, regarding perspiration as hurtful and unnatural. According to them intermittent fevers originated in the vena cava, liquids passed directly and unchanged into the lungs; the four elements served as an explanation for every thing; all diseases were caused by humors, etc., etc.

In this chaos of hypophetical opinions and doctrines, resulting from uncontrolled idealism, it was impossible for an impartial and conscientious observer to adopt one; and their mutual contradictions served only to show the necessity of a check for the human mind, which, when unrestrained by facts, seldom attains substantial results. One had only to oppose the school of Plato to that of Aristotle, Herophilus to Erasistratus, etc., and after overthrowing the dogmas of the one by those of the other, demonstrate the fallibility of all.

This was precisely the course pursued by the Empirics, who confounded their adversaries for a time. But did they replace the systems they dethroned by another more judicious? The exposition of their doctrines which we are about to make will show.

The school of the Empirics opened under the auspices of Philinus of Cos, (286 years B. C.) and Serapion of Alexandria (240 B. C.).* Among its most zealous adherents were the two Apollonii, father and son, Glaucias, Antiochenes, Menodotus, Sextus, Theudas and Heraclides. Unfortunately all their works have perished, and the accounts of their system which have reached us are principally derived from Galen and their opponents. It is therefore probable that they are not represented with impartiality. The Eclectic Celsus, however, (after Hippocrates, the most ancient physician whose writings have come down to us) has left us an admirable chapter on the leading opinions of the Dogmatic and Empirical sects.*

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* Celsus says that the Empirics claimed a more remote origin. However, they had no distinct existence until the time of Philinus of Cos. See Galen: Introductio vel Medicus.

The Empirics sustained that experience and observation were the only true and solid foundations in medicine. "They did not, however maintain," says Celsus, "that reasoning was entirely unnecessary, but they considered all conjectures in relation to occult causes as futile; 'for,' said they, 'it is less important to understand the causes of a disease than to know what cures it. The essential point is not to ascertain how digestion is carried on — whether by coction or by dissolution — but which are the most digestible aliments. It is less necessary to discover the causes of respiration than the means by which the difficulties and impediments of that function may be remedied. Less useful is it, also, to ascertain what causes the arteries to beat than to understand the signs furnished by their pulsations.' They added that philosophers had changed medicine from a practical into a logical art; that practice and not disputations made the good agriculturist and pilot, and that it was not by the use of arguments, but by that of remedies, that the cures of diseases were effected." "Nam ne agricolam quidem aut gubernatorem disputatione, sed usu fieri * * * Itaque ingenii et facundiam vincere, morbos autem non eloquentiâ, sed remediis curari."†

Experience, according to them, should be the result of the most perfect induction. For its acquisition the following sources were indicated: 1st. Natural Observation, which consisted of a knowledge of the causes which rendered a man sick or cured him *naturally*, without the intervention of art, as when an epistaxis terminates a fever. 2d., Fortuitous Observation, or facts furnished by accident, as when a man suffering from a violent headache and walking with an unsteady step, happens to fall and receive a wound on the head, which bleeding profusely relieves the headache. 3d. Artificial Observation was derived from experiments made in certain cases, not for the purpose of sustaining preconceived or theoretic ideas, but merely to ascertain the result.

Autopsy, History and Comparison—or the senses, memory and analogy constituted the basis of the science, and were called by Glaucias "the tripod of medicine."

"*Autopsy*" consisted in the knowledge acquired by repeated observations of a similar character, and in the ability of applying the information thus obtained to the diagnosis and treatment of cases which presented an identical nature. But, as few physicians have the opportunity of observing personally all the different morbid conditions incident to mankind, the Empirics resorted, also, to what they termed "*history*," viz., a series of admitted facts, collected from the observations of different physicians, in relation to the symptoms of diseases or to the effects of medicaments. The most perfect induction was to serve as a guide in these cases. It was not sufficient for a symptom to have been remarked by one physician, but the observations of other practitioners in similar cases were considered, and the opinions of the majority recorded, as a rule for practice. Observations were to be made in the same manner, in analogous circumstances and in diseases perfectly identical in their character. When this was done and the observations resulting therefrom had been proved by experience to be correct, it was called a "THEOREM," and a collection of these *theorems* constituted the science. The object of *comparison* or *analogism* was to apply the facts acquired by observation of one disease to another which appeared to resemble it, or which was not yet understood. It served them also in their researches for new medicaments; thus, from the utility of quinces in diarrhœa, it was inferred that medlars (from being astringent) might have a salutary effect in the same malady.

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* De arte medica libri octo. praef. Our principal indebtedness is due to this celebrated description. Several books of Galen are, also, devoted to this subject, viz: De sectis; De optima secta; et de subfiguratione Empirica. In modern times Le Clerc (Hist. de la Méd. in 4to; La Haye, 1729, pp. 243–370) and Ackermann (Institutiones historiæ medicinæ; Nuremberg, 1792, in 8vo) have given excellent résumés of the system of the Empirics. See, also, Sprengel (Histoire de la Méd. vol. 1, pp. 469–496) and Dezeimeris (Dict. Hist. de la Méd. in loco).

† Celsus. De Arte Medica. In præfat, p. 6.

The Empirics condemned researches into the remote or proximate causes of disease, but collected with care the symptoms that fell under the observation of the senses.

They sustained that everything was experimental in medicine; that those who applied themselves to the study of the secret nature of diseases and medicines never discovered anything which could serve to guide them in their practice, and that in spite of the most subtle dissertations, they were always compelled to resort to the lessons of experience. "In reducing the art of observation to steady and invariable rules," says Sprengel, "they rendered a much more important service to the science than other ancient physicians ever did by all their vague theories. The speculations of the Dogmatists have long since been buried in oblivion, and none but the historian cares to disinter them; but not so with the rules which the Empirics left us on the manner of observing, which serve even in our days as a guide for our researches, and as a touchstone for our conclusions."

The Empirics certainly deserve great praise for purifying the science from so many of the philosophic fallacies of their age, and especially for insisting on the necessity of observation and experience, without which medicine could but wander in obscurity. But in their earnestness to avoid the errors of their antagonists they fell into the opposite extreme in assigning too narrow limits to the exercise of reason. The proper use of this faculty is indispensable in every science, and cannot be proscribed in medicine. It is through its well directed agency that we are enabled to make our observations and experience available, and to arrive at correct generalization, without which medicine could never pretend to the rank of a science.

A proper appreciation of the causes and symptoms of diseases, of the influence of foreign agents, and of the therapeutical action of different substances on the human system, requires the use of all the means in our possession—intellectual as well as physical. What the senses fail to indicate may be discerned by correct reasoning—not, indeed, by the *a priori* method of the ancient Rationalists, but by that reasoning which is the result of sound sense, and which is the natural consequence of facts observed by minds already well versed in the knowledge of the different branches appertaining to the science.

While the Empirics rendered great service by the care with which they collected symptoms, they failed to establish the general principles which should have resulted from the co-ordination of the facts observed. They, therefore, left an imperfect work, the final object of which was undetermined not only for themselves, but for their successors.

Each disease, according to their system, had to present uniform and identical symptoms. But as peculiarities and secondary differences were constantly observed, as in morbid conditions presenting the same genera character, the details of symptoms were seldom uniform, they continued to establish new theorems, until from their countless number, it became impossible to avoid confusion. They forgot that in the millions of leaves on a tree, two are not to be found precisely alike, and that the slight differences between them do not prevent the naturalist from forming his inductions as to the general character of these leaves, and that the conclusions thus arrived at are correct. The same with diseases. No two cases of the same malady are without slight differences, but if this were to prevent us from forming groups and classes, induction and rules for practice would be impossible, and medical experience a word devoid of sense.

After Symptomatology, Materia Medica was of all the branches of medicine, the most assiduously cultivated by the Empirics. Heraclides is cited by Galen and Cœlius Aurelianus, not only as a correct and conscientious observer, but also as the author of works on "Materia Medica," and on "the preparation and composition of medicaments." An extensive commerce and the personal taste of the princes of that epoch did much towards promoting the researches of the Empirics. Attalus Philometor, last king of Pergamos, and Mithridates Eupator, king of Pontus, gave much of their time to the study of the virtues of drugs and plants. The latter prince being in constant dread of poison, devoted his attention to the discovery of antidotes. Botanical gardens were established, in which the papaver somniferum, hyoscyamus, hemlock, aconite, hellebore and other plants were cultivated, and these and other poisons and their antidotes were, according to the custom of the time, experimented with on criminals. These circumstances, together with the attempts of the Empirics to discover specifics for each disease, led to the introduction of a considerable number of new medicinal substances.

The Empirics neglected Physiology and pretended that Anatomy was entirely useless and only calculated to inspire disgust, when studied on a corpse, and horror, when illustrated by opening the living body.[*] Strange as it may appear, they have found apologists, even in modern times, for having rejected these fundamental branches of our science. Thus, Le Clerc, in his valuable history of medicine, in comparing the doctrines of the Dogmatists and Empirics, inclines to those of the latter, but in his excessive zeal to defend their system, he treats anatomy and physiology in a manner unworthy of his age. In the chapter entitled—"*Reflections of a modern physician on the judgment of Celsus*," the influence of physiological and anatomical discoveries on our science, is referred to in the following disparaging style: "I wish to learn what new benefits practice has derived from these discoveries, and with what remedies they have enriched medicine? We must confess that the science has profited but little by them, and it is not without reason that physicians are ridiculed because as many men die now as before Harvey's discovery of the circulation of the blood. This discovery is of the greatest importance to a correct knowledge of the course of the blood; but if we except this, and the advantages that surgery may derive from it and from a better understanding of the lymphatic vessels, the rest is not considerable.*"

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[*] Celsus, in reporting the arguments of the Dogmatists and Empirics, informs us that the barbarous custom of dissecting living men (criminals) existed at that epoch. Tertulianus says: "Herophilus ille Medicus aut Lanius, qui sexcentos homines exsecuit ut naturam scrutaretur, qui hominem odit, ut nosceret, nescio an omnia interna ejus liquido exploravit, ipsa morte mutante quæ vixerant, et morte non simplici, sed ipsa inter artificia exsectionis."

Le Clerc might as well have said that diagnosis was unnecessary in medicine. In order to understand the pathology of an organ we must first know its anatomy and physiology. Without these two fundamental branches, physicians would be unprovided with sure means for diagnosis; they would act in the dark, and the practice of medicine would consist of the blind administration of certain drugs in the treatment of diseases of the most opposite characters.

It is only since physicians have applied themselves to the study of pathological anatomy that diagnosis has acquired an almost unfailing certainty, and to it, principally, may be correctly attributed the immense progress in medicine during the present century. It is for having neglected these important branches that until a late date our science was surrounded with obscurity and incertitude on every side. Different diseases presenting the same symptoms were confounded, and symptoms attending various morbid conditions were attributed to one and the same disease.

But the time is passed when physicians could be justly "ridiculed because as many die as before Harvey's discovery." Of course, whatever may be the practice of medicine, whatever the perfection attained, according to the decree of high wisdom, one generation must yield its place to another. "It is appointed unto all men once to die." But all that can be expected from our science is being rapidly accomplished. Diseases and their treatment are infinitely better understood; private and public *hygiene* have made immense progress, and the average duration of human life has been greatly prolonged. A reference to the statistics of mortality in different parts of the civilized world is sufficient to prove this.

According to Duvillard, the average duration of life in France before the revolution was 28.4 years; it reaches at present 36.7 years — a gain of about

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* Le Clerc Op. Cit., p. 362.

8 years.* In England, in 1801, the ratio of mortality was 1 in 44.8; in 1811, 1 in 50; and in 1821, 1 in 58. In Sweden from 1755 to 1775 it was 1 in 35; it is now 1 in 48. The same satisfactory results have been obtained in other countries, and are not less remarkable in cities. †

In a science so vast in its nature — comprehending everything appertaining to and capable of acting on the human organism, in its physiological as well as in its pathological state — it would be vain to expect absolute certainty. "Medicine," says Chomel (Path. p. 514) "in its indefinite perfectibility, will always offer to those who cultivate it an illimitable field, presenting innumerable obstacles, in overcoming which elevated minds will develope their strength and show their superiority."

Excellence and improvement in medicine are dependent on a correct knowledge of the *causes* as well as of the *symptoms* of diseases, on therapeutics not merely *Empirical*, but *scientific*, supported, as far as attainable, by a proper understanding of the modus operandi of medicaments, and differing for the same disease according to the various exigencies of idiosyncrasies, epidemic constitutions, climate, age, sex, etc., etc.

By their unwise rejection of anatomy and physiology, by placing too severe a check on the reasoning faculty, the Empirics committed errors fatal to their system. Men of intelligence shunned their school, and it gradually fell into disrepute and degenerated, until retaining as followers only the ignorant, the superstitious and the dealers in so-called specifics, the once honored name of Empiric became an opprobrious by-word and a synonym for Charlatan.

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* Michel Lévy. Traité d'hygiène. Vol. 2, p. 420.

† Professor Dunglison gives the following statistics in his work on "Human Health," pp. 117, 118: "The annual mortality of London, in 1700, was 1 in 25; in 1751, 1 in 21; and in 1801 and the four years preceding, 1 in 35; in 1811, 1 in 38; in 1821, 1 in 40; the value of life having doubled in London within the last eighty years. In Paris, about the middle of the last century, the mortality was 1 in 25; a few years ago, about 1 in 32; and it has been estimated that in the fourteenth century it was 1 in 16 or 17. Berlin improved in salubrity during 60 or 70 years from 1 in 28 to 1 in 34. The mortality in Manchester, about the middle of the last century was 1 in 25; in 1770, 1 in 28; forty years afterward — in 1811 — the annual deaths had diminished to 1 in 44; and in 1821 they seem to have been still fewer, although the population had quadrupled within sixty years through which the deaths have so diminished. At Geneva, good bills of mortality have been kept since 1549, and the results are in the highest degree gratifying to the philanthropist. It seems that at the time of the Reformation half of the children born did not reach six years of age. In the seventeenth century, the probability of life was about 11½ years; in the eighteenth century it increased to above 27 years. The probability of life to a citizen of Geneva has consequently become five times greater in the space of about three hundred years."

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IN the first three-quarters of 1862, the excess of births over deaths in Great Britain was 248,537, a national increase greater by 16,063 than in the corresponding period of 1861.
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BIBLIOGRAPHICAL NOTICES.

A THEORETICAL AND PRACTICAL TREATISE ON MIDWIFERY.—Including the diseases of pregnancy and parturition, and the attentions required by the child from birth to the second period of weaning. By P. Cazeaux, Member of the Imperial Academy of Medicine; adjunct Professor in the Faculty of Medicine of Paris; Chevalier of the Legion of Honor and of the supplementary number of the order of Charles III; Member of the Surgical Society; of the Biological Society; Medical Society of Emulation; Anatomical Society; non-resident Associate of the Medical Society of Bordeaux; Correspondent of the Society of Accoucheurs of Berlin; President of the Medical Society of the Department of the Seine. Adopted by the Superior Council of Public Instruction, and placed, by Ministerial decision in the rank of the Classical Works designed for the use of the Midwife students, in the Maternity Hospital of Paris. Third American, translated from the sixth French edition, by Wm. R. Bullock, M. D., with one hundred and forty Illustrations. Philadelphia: Lindsay and Blakiston. 1863. pp. 971. From the Publishers. For sale by A. Roman & Co., 417 & 419 Montgomery street, San Francisco.

Professor Cazeaux's work is too well known to the medical public to require at this late date an extended notice.

From the time the first French edition made its appearance up to the present day we have always considered it one of the safest and most valuable guides for the subject of which it treats. In the present edition numerous and important additions have been made throughout the work: "they are so numerous," observes the author, "that the sixth edition contains double the amount of matter in the first. It is, therefore, so to speak, a new book, in which, I trust, will be found collected all our knowledge in relation to the obstetric art." Among these additions is an elaborate article on the subject of turning by *External Manipulation*. After a succinct history of this method, Dr. Cazeaux says: "External Manipulations, performed with the object of bringing to the superior strait, one of the fœtal extremities, originally more or less remote from it, has been advised:

1. Before labor;
2. During labor and before rupture of the membranes.
3. During labor and after rupture of the membranes."

Before Labor. Prof. Cazeaux thinks that a careful examination should be made during the latter months of gestation, in order to determine the form and obliquites of the womb, the position of the fœtus, the greater or less amount of fluid and whatever other circumstances may affect the presentation of the child at the commencement of labor. Contrary to M. Mattei, who advises version by external manipulation from the sixth or seventh month he prefers waiting until the commencement of labor.

"*During Labor and before Rupture of the Membranes*—Under these circumstances is it, that version, by external manipulation, has been especially lauded by Wigand and German writers, and then only is it, that it seems to us to possess incontrovertible advantages. We may readily conceive, that the mobility of the fœtus at that time, immersed as it is in the amniotic fluid, ought strikingly to facilitate the movements sought to be executed: whilst, on the other hand, the possibility of rupturing the membranes as soon as the operation has succeeded, affords a sure means of avoiding a relapse.

With the exception of some special cases of which we shall have to speak hereafter, it seems to us indispensable, as a general thing, that the membranes should remain entire. A second condition regarded by Wigand as very important, is the persistence and regularity of the uterine contractions. If too feeble, spasmodic, or irregular, they ought, before anything else is done, to be stimulated in the first case, and made regular by opium or chloroform in the second. "I recollect several cases," he says, "in which the head, after having been forced down by the very violent contractions, rose again above the superior strait, until the very irregular contractions were made regular by the use of opium."

Contra-indications.— Besides the irregularity of the contractions, which it is always easy to remedy, version by external manipulation is necessarily excluded by all circumstances requiring a prompt termination of the labor. Thus, hemorrhage, convulsions, syncope, rupture of the uterus, prolapsus of the cord, fœtal monstrosities, &c., are so many contra-indications to the operation. The case is the same with twin pregnancies, which makes it very difficult to diagnose the presentation of both children, and in which it is not always easy to know whether the pressure is exerted upon both extremities of the same fœtus.

Positions of the Child, in which Version by External Manipulation ought to be performed.—The presentations of the vertex and pelvis are liable to certain irregularities or inclinations, which, in the great majority of cases, are corrected spontaneously when the membranes are ruptured, but which not unfrequently continue or facilitate the production of presentations more unfavorable still. In this case, the presenting part, head or pelvis, has no disposition to engage in the superior strait, but strikes against one of its borders. The longitudinal axis of the fœtus is not in the direction of the axis of the pelvis, but is more or less inclined to it. At other times, what is still more serious, it lies transversely, so as to form a trunk presentation; now, it is especially in these oblique or transverse positions of the fœtal axis, that version by external manipulation may be performed with advantage, and we shall borrow from Wigand the course to be pursued.

1. *Preliminary Measures.*—The first precaution is to make as sure as possible of the position of the child and the exact situation of the head and pelvis. Without entering into the details already given whilst treating of each presentation, we recall briefly that the accoucheur ought to make use successively of abdominal palpation, whereby he recognizes the fœtal inequalities, of the touch, performed whilst the patient is standing and whilst lying on the back, and finally, of auscultation. He will take especial note of the form of the uterine tumor, of the greater or less protrusion of the bag of waters, and of the impossibility of reaching any part of the child by the finger in the vagina.

The position the woman should take, varies according to circumstances. Generally, she ought to lie upon the side in which is situated the part of the child which it is desired to bring to the opening. Thus, if this part be the head, and it rests on the left ilium, the patient should lie on the left side. The lateral decubitus ought not to be carried too far, but just so as to direct the umbilicus slightly to the left. To give the abdomen a solid support, a thick and hard cushion, or a cloth several times folded, should be placed beneath, and against which the woman must be careful to press strongly, at the same time assisting herself with her hands. The change of position should be made between the pains, lest the displacement of the child in connection with the uterine contraction should occasion rupture of the membranes.

If the diagnosis has not been clearly made out, the patient will lie upon the left side, this being the position appropriate to the greater number of cases.

Decided antéversion, with the head resting upon the crest of the pubis, demands the dorsal decubitus, the pelvis being at the same time slightly raised, and the abdomen supported by a broad bandage in the hands of assistants.

The position of the accoucheur will be various, and sufficiently indicated by the operation he is about to undertake.

Both the bladder and rectum ought, of course, to be emptied.

Mode of Operation.—In some cases of simple obliquity of the child, the mere position, aided by the cushion placed beneath the side of the abdomen, has proved sufficient to accomplish the reduction, though most frequently, especially in transverse presentations, external manipulation becomes necessary.

The accoucheur ought always to endeavor to cause that extremity of the child to descend into the strait *which is nearest the opening of the pelvis.* Breech presentations are not so unfavorable but that we may, in some cases, give up the attempt to bring the head down first, in order to avoid too long continued and perhaps hurtful efforts.

Suppose, then, the child to be in the left cephalo-iliac position of the right shoulder. The operator, being to the right of the bed and wishing to depress the head, places his right hand upon it, and whilst endeavoring to make it descend, he, at the same time, endeavors to raise the pelvis by pressing it upward with his left. Acting thus in opposite directions with his hands, and endeavoring to preserve accordance in his motions, he makes light frictions on the two extremities of the child; if these be not successful, he will press more strongly, always acting at the same time on both extremities.

As soon as the cephalic extremity is brought to the superior strait, a few moments should be allowed to pass in order to be certain that it is well fixed there; then the membranes ought to be ruptured, so that the contraction of the womb may keep the child in its new position.

When the head happens to be in the neighborhood of the uterine orifice, as in oblique or inclined positions of the vertex, it will suffice to press with a single hand upon the part of the abdomen corresponding with the breech, whilst two fingers of the other hand, passed into the cervix, slide the head over the edge of the strait and rupture the membranes at the proper moment.

It is easy to understand the modifications required by the operation, when it is decided to bring the breech, instead of the head, to the superior strait.

The change once made, the delivery is left to nature, though, if difficulties should occur, the usual means will be employed for their removal.

External manipulation may be practised with any amount of dilatation of the cervix, though it were best, in general, not to rupture the membranes until the dilatation is pretty well advanced. When, at the commencement of labor, the accoucheur detects an oblique position of the head or breech, or a presentation of the trunk, he ought first merely to put the woman in a proper position, and by means of a folded cloth or hard cushion placed under the side of the abdomen, make pressure upon the part of the child which he wishes should engage. At the same time, he insists upon absolute immobility, especially during the pain, and if after waiting five or six hours, these measures have not sufficed to change the presentation, he will have recourse to external pressure as already described. When the conversion is effected, the membranes ought to be ruptured at once, provided the dilatation of the cervix is advanced, but if otherwise, the woman should be merely kept upon her side and proper pressure maintained upon the abdomen. Sometimes, notwithstanding these measures, the child resumes its faulty position, and then the whole operation has to be repeated, and the membranes broken immediately after.

During Labor and after Rupture of the Membranes.—Under these circumstances, version by external manipulation is advisable only in oblique positions, when the head or breech are very near the cervix, the membranes broken only a short time before with a certain amount of water remaining in the uterus, and the child possessing considerable mobility. Even then, it were proper to be very careful and not continue too long attempts, the least inconvenience of which would be the loss of precious time. For my own part, I would prefer, if the dilatation of the neck allowed it, to take advantage of the favorable conditions and perform the pelvic version. For a stronger reason, would I be disposed to advise the same thing to be done in transverse presentations of the trunk.

Flamand did not restrict the rule to bring down the head in trunk positions to the cases just indicated; but he was also in favor of the performance of the cephalic version, even after the rupture of the membranes and the discharge of the amniotic liquid. He has even gone so far as to point out the particular manœuvre for each one of the distinct presentations admitted by him, for the child's anterior, posterior, and lateral planes. (*Journ. Complenent. des Sciences Medicales;*) but we deem it useless to enter into his long details, more especially since they may all be comprised in this: to grasp the presenting part, push it up above the strait, and then carry it as far as possible towards the side opposite to where the head is found; and afterwards get hold of the head, and bring it down, if the efforts made by the other hand through the abdominal walls have not proved sufficient to make it descend into the excavation.

Flamand himself acknowledges that this operation seldom succeeds, excepting when some region of the neck or upper part of the thorax presents at the strait. For our own part, we believe it would be difficult, even under such circumstances; however, it is barely possible, especially if there is still some water in the uterus, and the contractions are not very energetic; still, under the circumstances, we should think it right to endeavor to effect the object. But where a long time has elapsed after the rupture of the membranes and the total discharge of the amniotic liquid, and the womb is strongly contracted, we do not hesitate to recommend the pelvic version in preference; and particularly so, in those cases in which some region of the lower half of the trunk presents at the centre of the strait.

In common with many of our contemporaries, we had hitherto advised cephalic version in cases of contracted pelvis, from a fear of the difficulties to which an arrest of the head above the superior strait would give rise. An interesting memoir, by Dr. Simpson, having again directed our attention to the advantages and disadvantages of pelvic version, we subjected the known facts to a careful examination, and now confess that the reading of the memoir has greatly changed our opinion. We are, at present, convinced that the dangers of pelvic version, in cases of contracted pelvis, have been much exaggerated, and do not hesitate to recommend this operation in preference to cephalic version, which would prove very difficult after a complete evacuation of the waters, and, after all, would require the forceps to be applied.

Still more strongly would we prefer pelvic version, if the pelvis were one of the kind in which the narrowing affects one side much more than the other; that is to say, one in which the sacro-vertebral angle, though projecting strongly forward, is, at the same time, turned to one side, as in the oblique-oval pelvis of Mr. Nægèle, for it would enable us the more easily to direct the back, and the large occipital extremity of the head toward the most roomy side of the pelvis.

When a trunk presentation is complicated by the descent of an arm, the cephalic version, recommended by Ruffius (*humeri repellendi ut cadet caput*), Rhodion, and others, should, in my estimation, be wholly rejected; since the necessity of a previous return of the arm would then render the version by the head exceedingly difficult, if indeed, as before stated, the premature rupture of the membranes did not constrain us to abandon it altogether. Consequently, the pelvic version would appear to be far preferable in cases of this kind.

Presentations of the Pelvic Extremity.—"Partisans, as we are, of the version by the head," says Flamand, "we are not prepared to propose it in these cases indiscriminately, notwithstanding we are that way inclined. But after a consideration of the following suppositions, we do not doubt that every unprejudiced accoucheur will follow our advice, and attempt this operation.

"Supposing that a monstrosity were to present without any lower extremities whatever, or one having only a couple of little stumps near the buttock, too small to furnish a sufficient hold for the accoucheur's hand to draw down the breech, and at the same time the mobility of the fœtus indicates the possibility of bringing down the head, who would hesitate to attempt the operation?" For ourselves, we should not hesitate to leave the delivery entirely to the powers of nature; for what would be gained by drawing on the pelvic extremity? Have not the precepts of Madame Lachapelle, of Desormeaux, of Dubois, and others, taught us, that all tractions on this extremity are more hurtful than beneficial? And would not some of those disadvantages that Flamand and his followers refer to the delivery by the breech, and on which they rely for advising the cephalic version,—would not they result in consequence of such imprudent tractions?

"Supposing a woman has but three inches and three lines in her sacro-pubic diameter, and that in former labors she has lost several children that were delivered by the breech; and besides, that the fœtus appears sufficiently movable at the time or shortly after we are obliged to rupture the membranes—an attempt to effect the version by the head is warrantable."

We likewise believe that, in such a case, the accoucheur would be justified in making this attempt before the membranes are ruptured; but after the discharge of the waters, it appears to us that this operation must be impracticable in a large majority of cases; and we should then prefer well-conducted tractions on the trunk of the child, using every exertion to keep up the flexion of the head at the moment when the latter reaches the superior strait. The observations of Madame Lachapelle, and those published more recently by Dr. Simpson, afford a satisfactory reason for our preference, even in those cases where the pelvic contraction results from the direct forward projection of the sacro-vertebral angle; and this precept would be still more applicable, if one of those pelves described by M. Nægele, under the name of the oblique-oval, were to be met with. For the tractions then made on the breech would have the effect of turning the child's back, and, as a consequence, the large occipital extremity of the head, towards the widest part of the pelvis.

To recapitulate. Version by external manipulation ought to be attempted in oblique or transverse positions of the body of the child, only during labor, and, if possible, before the membranes are ruptured. Should, however, but a few moments have elapsed since the rupture took place and a certain amount of water remain in the womb; if, in short, the child is still movable, and the part to be brought down very near the cervix, some attempt may yet be made with this object; but, should difficulty be met with, pelvic version must be employed instead.

If the faulty position of the child has been discovered before labor, the preventive measures already mentioned should be had recourse to, and external manipulation left until labor has begun."

We have compared the present American with the sixth French edition, and it gives us pleasure to say that the translator, Dr. Wm. R. Bullock, has accomplished his task in a manner alike creditable to himself and most profitable to the profession. The publishers have very judiciously spared neither pains nor expense in the execution of the work. The paper, type, illustrations and binding, are all excellent.

Physiological Memoirs. By William A. Hammond, M. D., Surgeon-General U. S. Army; Fellow of the College of Physicians of Philadelphia; Member of the Philadelphia Pathological Society; Honorary Corresponding Member of the British Medical Association; late Professor of Anatomy and Physiology in the University of Maryland, etc. Philadelphia: J. B. Lippincott & Co. 1863. pp. 348. For sale by A. Roman & Co., 417 and 419 Montgomery street, San Francisco.

Dr. Hammond has for several years past devoted his attention to the special study of physiology.

The results of his labors were published from time to time in the *Amer. Journal of Medical Sciences.* They have been collected and are now presented to the profession under a more convenient form, in a neatly printed volume of three hundred and forty-eight pages.

These contributions possess a highly interesting character, both on account of the subjects treated, and the originality of some of the experiments.

The first article is "On the relations existing between urea and uric acid." The author gives the results of some experiments undertaken with the view of ascertaining whether the theory of Liebig, in regard to the formation of urea form an intermediate substance (uric acid) could or could not be sustained by further investigation.

These experiments show "that physical exercise augments the quantity of urea excreted, and, at the same time, diminishes the amount of uric acid; and, on the other hand, that a state of almost complete inactivity produces directly contrary effects. The investigations referred to, therefore, go to prove that, under the condition stated, these substances, as regard quantity, stand in opposite relation to each other, and thus support the theory of Liebig, which ascribes the formation of urea to the continued oxydation of uric acid." Experiments are also given to show that by the respiration of oxygen in a greater state of purity than atmospheric air, urea can be formed in animals that do not ordinarily excrete it.

Dr. Hammond's investigations for the purpose af ascertaining the effect of intellectual labor on the quantity of urine excreted are highly interesting. The following conclusions are deduced from them: 1st. That increased mental exertion augments the quantity of urine. 2d. That by its influence, the urea, chlorine, and phosphoric and sulphuric acids are increased in quantity. 3d. That uric acid, on the contrary, is very materially reduced in amount. 4th. That diminished intellectual exertion produces effects directly contrary to all the above.

"Thus the brain is seen to follow the same general law which governs the other structures of the body—increased use promotes increased decay, and the products of this decay are, in like manner, removed from the system to make way for newer matter."

The urine is, also, considered in its relations to certain articles of consumption—tea and coffee. Thirty-two ounces of a strong infusion of tea was taken daily for a period of ten days. The same was done with coffee. We regret that Dr. Hammond does not state more precisely the strength of these infusions, viz., the quantity and quality of each substance in proportion to the water used. The term "strong infusion" is too indefinite in such experiments. What would be considered a strong infusion of tea or coffee by some would be called weak by others.

The following are his conclusions:

"1. That both tea and coffee are excitants of the brain and nervous systems, and at the same time considerably retard the metamorphosis of the tissues.

"2. That tea possesses a more powerful influence in restraining the destruction of the tissues than coffee, while the latter substance is a greater stimulant of the cerebral faculties and nervous systems."

"The practical application of these facts would lead to the use of tea in certain exhausting diseases, and in the laboring poor who are unable to obtain sufficient food to supply the necessary waste of the animal substance, while for the rich, the student, the literary man, the man of business—and, in fact, all others in whom it is important to keep up a certain degree of cerebral activity or physical ability, but who are not likely to suffer for want of nutriment, coffee is to be preferred.

"As has been observed by Julius Lehmann, and as is also apparent from the foregoing experiments, there are two effects of coffee upon the animal economy which it is difficult to harmonize—the exciting influence upon the brain and nervous system, and the power it possesses of limiting the metamorphosis of the tissues. These effects follow the use of tea and alcohol also—and, as I have recently ascertained, tobacco—though they do not bear the same relation to each other with each of these substances.

"That tea and coffee are beneficial to mankind when used in moderation must be apparent to all who are acquainted with the recent investigations on the subject. Aside from their physical effects, the feeling of contentment they engender within us, and the disposition to reflection they encourage, are not to be disregarded in the estimation of the sum total of their good works. Sidney Smith says: (Memoirs of, by Lady Holland) "Thank God, for tea! What would the world do without tea? I am glad I was not born before tea. I can drink any quantity when I have not tasted wine; otherwise I am haunted by blue-devils by day, and dragons by night. If you want to improve your understanding, drink coffee." Sir James Mackintosh used to say, "he believed the difference between one man and another was produced by the quantity of coffee he drank." When experiment demonstrates what observation has long qeen teaching us, it should serve to check the railings of those who can see nought but evil in the use of those and other substances which are probably nearly as serviceable."

We regret that our space will not permit us at present to continue our synopsis of these physiological memoirs on the following subjects: On the excretion of Phosphoric Acid through the Kidneys. The physiological effects of Alcohol and Tobacco upon the Human System. Experimental researches relative to the nutritive value and physiological effects of Albumen, Starch and Gum when singly and exclusively used as food. On the alterations induced by intermittent fever in the physical and chemical qualities of the urine, and on the action of the disulphate of quinine. On the injection of urea and other substances into the blood. On the action of certain vegetable diuretics. Experimental researches relative to Corroval and Vao, two new varieties of woorara, the South American arrow poison (with Dr. Mitchell). On the physical and chemical characteristics of Corroval and Vao, and on a new alkaloid constituting their active principle (with Dr. Mitchell). Experimental researches relative to a supposed new species of Upas. Further experiments relating to the diuretic action of colchicum. Uræmic intoxication.

The author, by his industry and intelligence, is eminently qualified for these interesting investigations. We know of no field in the wide range of our profession offering greater opportunities for benefitting our science and acquiring fame. It is by such investigations and experiments that Magendie, Berard and Brown-Sequard have gained a world wide reputation—a reputation which, we feel satisfied, is in the power of our author to acquire.

CHEMISTRY.—By William Thomas Brande, D. C. L., F. R. S. L. and E. of Her Majesty's Mint, Member of the Senate of the University of London, and Honorary Professor of Chemistry in the Royal Institution of Great Britain; and Alfred Swaine Taylor, M. D., F. R. S., Fellow of the Royal College of Physicians of London, and Professor of Chemistry and Medical Jurisprudence in Guy's Hospital. Philadelphia: Blanchard & Lea, 1863. pp. 696. From the publishers. For sale by Roman & Co., 417 and 419 Montgomery street, San Francisco.

THIS is an American republication of a most important work which was issued a few months ago from the English press. Written by two of the most accomplished Chemists of Great Britain, Drs. Brande and Taylor, the volume before us is remarkable for its fullness, lucidity of arrangement and clearness of language. Throughout its pages information is imparted with admirable accuracy, without pedantry, and in a manner which makes the subject perfectly clear to the mind. This rare merit, together with unsurpassed fundamental qualities, will no doubt secure for this new work the rank and title of "Hand-book, *par excellence*, for the student of chemistry."

The work is divided into four parts: 1st, Matter and its properties; 2d, Metalloids; 3d, Metals; 4th, Organic Chemistry.

The authors observe: "In addition to the general properties of bodies, we have attached to the description of each substance, a summary of its most important characters, with an account of the special tests required for its detection. The student will thus have in this book a Manual of *Practical Chemistry*. As an adjunct to this branch of the Science, the subject of *Practical Toxicology* has been introduced in reference to the most important "poisons," and the processes for their detection. We have also treated, as fully as our space would permit, the chemical principles on which *Photography* is based, and have given some practical rules for the guidance of those who wish to apply their chemical knowledge to this interesting art.

Having been engaged in teaching Chemistry in this metropolis, the one for a period of forty, and the other for a period of thirty years, it has appeared to us that, in spite of the number of books already existing, there was room for an additional volume, which should be specially adapted for the use of students. In preparing such a volume for the press, we have endeavored to bear in mind, that a student in the present day has much to learn, and but a short time at his disposal for the acquisition of this learning. An eminent writer has truly observed, that the whole circle of the Sciences is required to comprehend a single particle of matter; but *ars longa, vita brevis.* If a Medical Student has before him only a few years for acquiring a knowledge of at least eight sciences, the efforts of those who contribute to the literature of these sciences should be directed to the elucidation of the most important facts and principles, omitting altogether those details which are either of a controversial nature, or are not yet established on a satisfactory basis. In reference to this book, it may be considered by some, that we have assigned too little, and by others, too much, space to our subject. This, however, is a question of opinion, on which persons may reasonably differ. We have taken that which seemed to us to be the proper course; and we trust wo have so dealt with the principles and practice of *Chemistry*, that the contents of this book will prove useful to the general, as well as to the professional reader."

* * *

FOREIGN BODY IN THE AIR PASSAGE.—The *Chicago Medical Journal* for March, 1863, contains a communication from Dr. John Swain, of Ballardsville, Kentucky, in which is related the case of a child nine years old, who got a tack in his "wind-pipe." Vomits were given, but failed to dislodge it. There being some doubt as to the precise location of the foreign body, after a consultation, it was determined not to interfere chirurgically, but to leave the doubtful matter to nature. The little patient attended school from that time regularly, with no inconvenience save a slight hacking cough night and morning, and an occasional wheezing upon extra exertion, when, on the 26th day of January, 1863, 108 days from the time of inception, he was taken, while in bed, with a violent fit of coughing, and expelled upon the bed-clothing the identical tack, enveloped in bloody sputa; calling to his father "here it is! here's the tack!" Upon examination, it was found to be a hoe-shaped saddler's tack, 6½ lines in length, with a head measuring upon its face 2½ by 2 lines. This case corroborates the judicious remarks of Drs. Hatch and Logan against "a too hasty use of the knife."

* * *

SUPRAPELVIC HÆMATOCELE.—In the accounts given of this affection, the blood is generally described as being contained in the peritoneal *cul de-sac* behind the uterus, and as forming a tumor capable of being felt through the rectum and vagina, and sometimes by pressure in the hypogastric region. Some cases, however, which have come under M. Gosselin's observation, have led him to the conclusion that the effusion from the ovary may (from some as yet unknown cause) be arrested *above* the pelvis, and form a tumor capable of being detected by palpation in the hypogastric region alone, and not by the vagina or rectum. One patient under his care presenited on two separate occasions, after symptoms resembling those of peritonits, a tumor of the size of a fist in the left side of the abdomen; it disappeared readily each time, without any discharge of pus by the alvine excretion, by the urine, or by the vagina. M. Gosselin proposes to term this variety "suprapelvic hæmatocele."—*British Medical Journal, June* 7, 1862,—*from Gazette des Hopitaux*, 19 *Avril*, 1862.

A Remedy for Sea-Sickness.

BY DR. MORLAND HOCKEN.

Translated from the *Gazette Hebdomadaire* of April 10th, 1863, for the *Pacific Medical and Surgical Journal.*

Dr. Hocken of the English Navy, during two voyages of circum navigation has experimented with the different remedies advocated for sea-sickness.—For this purpose he divided his men into squads of ten and each was treated by different means. Chloroform, creosote, effervescing drinks, cyanohydric acid, alkalis, morphine, alcoholic beverages etc., were successively tried. Of these, creosote and prussic acid proved the most successful, but none were as efficacious as the following mixture:—

℞:

Acid. muriatic. dil. - - - -	ʒii
" nitric. dil. - - - - -	ʒi
" hydrocyanic. dil. (Scheele's) - -	gtt xvi
Magnes. Sulph. - - - -	ʒvi
Aquæ - - - - - - - -	℥viii

Misce. Sig. Two tablespoonful to be taken every three or four hours.

The efficacy of this recipe was remarkable in a case in which sea-sickness was complicated with a state of pregnancy. The vomiting was so constant and severe that recourse to forced abortion seemed to be inevitable, when a cure was obtained by the administration of this mixture.

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HEALTH OF SAN FRANCISCO.—The total number of deaths for the month of May was 173, being 16 more than for the month of April: 108 deaths were recorded in the Lone Mountain, of which 27 were under 3 years; 63 in the Roman Catholic, of which 27 were under 3 years; and 2 in the Jewish Cemeteries.

The principal causes of deaths are recorded as follows: consumption, 20; diseases of the heart, 5; diseases of the brain, 5; diseases of the lungs, 3; diseases of the liver, 2; delirium tremens, 3; dysentery, 3; diphthteria, 3; small pox, 1; scarlatina, 1; erysipelas, 1; measles, 1; whooping cough, 1; Panama fever, 3; typhoid fever, 2; still-born, 9.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Foreign Correspondence.

BY PROF. CHARLES A. LEE.

THE principal hospital of Florence was founded as far back as 1286, by the father of Dante's Bertrice. It covers a large area of ground, though it has but one court of any great size. It numbers over one thousand beds. In consequence of the fashion to bequeath property to hospitals it became very rich, but in the last century the government seized upon all its possessions, and has since administered them. It contains wards for males and females, divided, as usual, into medical and surgical; a syphilitic ward, one for contagious disorders, one for ophthalmic diseases, a lying-in ward, *one for the delirious in fever*, and one for cutaneous affections. It also receives children, who as in most Italian hospitals, are scattered around among the other patients.

The main portion of the building is in the form of a cross, the longest section being divided longitudinally into three long wards by partition walls. Of course none of them can be well lighted or ventilated. The air can only be admitted on one side, and that in limited quantity. The wards forming the transepts labor under the same inconvenience. The lying-in ward has two small windows at one end of the room, otherwise it has no means whatever for the admission of either light or air. The upper wards are still worse, and those appropriated to syphilitic and ophthlamic cases are unfit for any human beings to stay in for any length of time. I am indebted to the kindness of Dr. Gloig, one of the attending physicians, for showing me over the entire establishment, and explaining everything connected with its management. It seems that no statistical reports of admissions, diseases, deaths, etc., have ever been published; one reason assigned was, that the doctors could not agree as to the names of the diseases. In regard to the ratio of mortality, it was stated that the deaths averaged about two daily. During some seasons of the year the number of patients reaches as high as two thousand. At present it is considered a healthy season. There is one small ward for pay patients, at present containing about a dozen, who pay two and a half francs each per day. The ventilation, however, like every other part of the buildings, is very imperfect, and all the surroundings disagreeable; very different from what I found at Berlin, Vienna, Venice. All the wards were too crowded, the beds being within four feet of each other, and the rooms quite narrow. The whole establishment was pervaded by a strong, disagreeable hospital smell, and the upper wards were so close and stifling that I was very glad to escape from them as soon as possible. The floors also did not present that degree of cleanliness that ought always to be found in such institutions; they were of brick, which does not show dirt quite as readily as polished deal or marble. In Venice all the floors of the hospital buildings were of hard, polished breccia composition, as hard and smooth and even handsomer than marble; a most admirable plan, and one which we might introduce with advantage into our own country. The nursing in this *Spedale di Santa Maria Nuova* is done by females who belong to an order of nuns who devote themselves to such works of charity and mercy. The *Sisters of Charity* are regarded here with suspicion, and are not employed in the hospitals in any capacity, under the impression, perhaps suspicion merely, that they belong to the order of Jesuits, who are now regarded with disfavor all over Tuscany at least.

In regard to the treatment of *fevers* in this establishment, I was told by Dr. G. that very little medicine was used in those of the typhus and typhoid classes, the main dependence being placed on suitable diet. In the malarious diseases, *quinine* is used freely—in ordinary cases to the extent of sixty centigrammes three times a day, and in those of a pernicious class, as much as four grammes wére given at a single dose, and repeated according to circumstances. Bleeding, he stated was rarely resorted to in this hospital for any disease. Patients would often come in the spring of the year and insist on being bled, in accordance with the old superstition, and in such cases he generally indulged them in their whim. The small-pox ward has been unusally full during the last year, the disease having prevailed extensively in an epidenic form, attacking almost indiscriminately those who had been vaccinated and those who had not. The scarlet fever also has been extremely rife and fatal in this city during the last year, although there has been but few cases of it during several preceding years. The croup is also a very common disease here, and is treated usually with emetics and blistering; zinc is a favorite emetic, but the physicians have no faith in tracheotomy, and it is very rarely, if ever, resorted to. The Surgery of the hospital, I should judge, from what I could learn, is of a highly respectable order. The surgical *armamentarium* is certainly most formidable, and presents an array of instruments, ancient and modern, which ought to satisfy the most bloodthirsty aspirant for chirurgical honors; and I will remark, by the way, that Italian surgical instrument makers will not suffer by comparison with those of the English and French, or any other nation.

In regard to the dietary of the hospital, there are three grades or degrees. The *first* consists of four potages, or soups, with an allowance of coffee, and some meat. The *second* of two potages, bread, and a little chicken. The *third* of chicken, boiled or roast beef or mutton, bread, etc. The allowance for the last, or what is considered full diet, is one pound of meat, one and a half of bread, and half a pint of port wine. This is considered a very generous allowance, "for," says Dr. G., "at Naples, they keep their patients for days and days together on nothing but oranges!" There are eight principal surgeons belonging to the establishment, and ten internes who have not completed their studies. There are also ten principal physicians, and four assistant physicians, who have completed their studies, but who wish to improve themselves in practice. They do not reside in the building, but alternately spend the whole day in the wards. There is an infirmary also for out-door male patients, and one for out-door female patients, and two physicians connected with each. This hospital has long been the great school of practical medicine for Florence, if not for Tuscany generally, and has produced some of the most eminent physicians, surgeons and anatomists of Italy. It is not a completely organized medical school, nor has it the power of conferring academical degrees; but it is simply a *practical school*, where medicine, surgery, and midwifery are clinically taught. The Medical University is at Pisa, where students have to pursue their studies for five years, when they receive a diploma; but this does not entitle them to practice until they have pursued their studies two years longer at this school in Florence, when they receive a certificate to that effect which authorizes them to commence practice.

There is an extensive anatomical and pathological museum connected with this hospital, which is said to be one of the most valuable in Italy. It is, however, in my judgment, far inferior to that at Bologna, which may well rank among the first in the world. Still this is a most valuable collection, illustrating every department of pathology by wet and dry specimens, carefully prepared and well preserved, and also beautiful wax preparations, illustrating every form of external and internal disease. The anatomical preparations are chiefly intended to illustrate regional anatomy, while descriptive anatomy is more especially taught at Pisa. There is no school, perhaps, in Europe where pathological anatomy is more thoroughly and successfully taught then here.

In the museum of this school, also, are the celebrated preparations of Legato, who died about thirty years ago. This celebrated anatomist discovered a mode of changing all animal tissues into stone without changing their form or color in the slightest degree, and even preserving the natural flexibility of the ligaments, tendons, and joints. Here is a tablet, perhaps a foot and a half square, inlaid with splendid mosaics in ornamental figures, consisting entirely of the various textures of the body converted into stone, hard and smooth as polished marble. For example, a portion of liver, lung, spleen, skin, kidney, penis, uterous, cartilage, muscle, brain, nerve, spinal cord, membrane, eye, bone, etc., etc., all retaining their natural color, and readily recognised by the anatomist. This celebrated genius did not meet with that encouragement which he expected and deserved for his most important discovery, the government entirely ignoring his valuable services, and the secret accordingly perished with him. Among the animals converted into stone I noticed the rat, cat, spider, fishes, etc., all looking perfectly natural. In connexion with museums of anatomy and pathology I cannot pass by in silence that most magnificent collection in the Pitti Palace, which goes under the name of the *Museo di Storia Naturale*. Commencing with the Grand Ducal Medicis, several of whom were great patrons of the natural sciences, it has been gradually enlarged by succeeding dukes and princes, and by naturalists, in every department, until it stands almost unrivalled among similar collections in Europe. Although the collections in natural history are worthy of all praise, both for their extent, admirable arrangement, and perfect preservation, yet the wax models illustrating the anatomy of the human body are entirely unsurpassed in point of beauty, accuracy, and truth, by any preparations of the kind hitherto attempted. It is perfectly safe to say that no such collection is known to exist, and that it is next to impossible that any should surpass it. The most ancient were executed by Zummo, a Sicilian, and represent the human body in various stages of decomposition. These, however, are few and comparatively unimportant. The greater portion represent healthy human anatomy, the bony structure, the ligaments, muscles, nerves, brain, membranes, organs of sense, viscera, organs of generation (male and female), pregnancy in all its stages, the placenta, uterus after delivery, fœtal circulation, absorbents and lymphatics, lacteals, heart, etc., etc. The entire series, illustrating the phenomena of utero-gestation, are especially admirable. Comparative anatomy is also extensively illustrated; especially the structure of the torpedo, the anatomy of the silkworm, the leech and cuttle-fish, the cat, dog, sheep, calf, turtle, fish, the common fowl, the hen's egg, etc., etc.

There are also wax models of vegetable anatomy, illustrative of the minute structure of plants; these were principally prepared under the direction of the celebrated Amici. The magnified representations of the microscopic parasites, which produce or accompany the disease of the vine (*oinium*) are also very interesting. The entire collection is an honor to Florence and to Italy itself.

Attached to this Museum is the temple erected by the last Grand Duke to Galileo, and inaugurated upon the occasion of the meeting of the Italian Association for the Advancement of Science in 1840. In the centre is a statue of the Tuscan Philosopher, surrounded by niches in which are placed busts of his principal pupils, and with presses containing the instruments with which he made his discoveries, including the telescope with which he discovered the satellites of Jupiter, etc. Under a glass cover is preserved one of the fingers of Galileo, which was abstracted by Gori when his remains were removed from their first resting-place to the tomb erected in the church of Santa Croce. The walls are beautifully inlaid with marble and jasper; the ceiling is richly painted in compartments, representing the principal events of the life of Galileo, and all the talent of Tuscany has been employed to render this temple worthy of the object for which it was intended. It is said to have cost nearly $200,000, not including the price of the manuscripts of Galileo and his pupils, which the Grand Duke had collected irrespective of cost, and which are preserved in the library in the Pitti Palace. Attached to the museum is a botanical garden, rich in rare and exotic plants.—*American Med. Times.*

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On the Use of Glycerine in Surgery and Medicine.

BY E. J. TILT, M. D., M. R. C. P.,
Consulting Physician to the Farrington General Dispensary, etc.

GLYCERINE is not sufficiently valued in this country as a therapeutical agent; whereas, the high estimation in which it is held on the continent may be inferred from the fact, that from 1851 to 1861 the annual consumption of glycerine in the Paris hospitals rose from 300lbs. to 3000lbs. I propose to point out the principal advantages of glycerine from personal experience, and from that of an eminent Paris surgeon, M. Demarquay, who has been chiefly instrumental in introducing this agent, and has just published the results of his experience in an interesting little work. In the process of making lead plaster glycerine is produced, but, as it contains lead, it has an irritating action on abraded surfaces. The only glycerine, therefore, fit for medical and surgical uses is Price's, which is made by subjecting palm oil to steam, raised to a temperature of 300° centigrade, and its specific gravity should be 1.26.

Glycerine is too well known to require description. Although derived from fatty substances, it will not combine with them, but mixes with water in any proportion, and has the power of dissolving all our active therapeutical agents about as readily as weak alcohol.

SURGICAL USES OF GLYCERINE.

Pure Glycerine.—In household surgery, glycerine is known as the best remedy for chapped hands and slight irritation of the face and lips. I have found it invaluable when freely used in nasal, pudendal, and anal irritation. It is applied in a large number of skin diseases in France; and Maisonneuve, Denonvilliers, and Demarquay use it to dress ulcers and wounds, instead of cerate. It appears to have antiseptic properties, inasmuch as it speedily gives a healthy appearance to foul, unhealthy, and even pultaceous-looking wounds. This is admitted by Baron Larrey, whose report is in other respects unfavorable to its use in surgery. Indeed this antiseptic property might be inferred from its preserving from decomposition meat and microscopic objects that are kept in it, or have been steeped in it.

Liniments.—Glycerine does not become rancid, like oil. It is cleaner, can be easily washed off, and does not stain the body linen like oil. Though glycerine does not dissolve fat, it is said to dissolve the sebaceous product of the skin, and thereby to facilitate the absorption of the various ingredients which it may hold in solution. For these reasons, glycerine is far preferable to oil as a basis for liniments.

Lotions.—Since Mr. Startinn has praised glycerine as a useful ingredient of lotions for the skin, this has been fully admitted. Its stability, cleanliness, inocuousness, and antiseptic properties make it a valuable ingredient for all the variety of lotions which are applied to the inflamed or to the unhealthy mucous membranes of the mouth, eyes, nose, ears, rectum, or vagina.

Ointments.—When starch is boiled in glycerine the membranes burst and uniformly thicken the liquid. If eighty grains of starch are boiled in one fluid ounce of glycerine, a moderately stiff and tenacious plasma or ointment is the result. It is stable, inodorous, clean and is capable of holding in solution or suspension all the agents usually incorporated with lard. Glycerine ointment does not become rancid like other fatty substances, does not soil the body linen, and can be instantaneously removed by means of a damp towel.

Mr. Bullock, of Hanover-street, has made experiments of combining glycerine with several kinds of starch, and I lately exhibited the samples at the meeting of the Obstetrical Society. Every kind of starch makes a very serviceable product, but maize and the ordinary starch seem to give the stiffest and most satisfactory result.

It has been objected to glycerine ointment that it is too absorbent of moistures to be useful; but this is not true. It absorbs moisture only to a limited extent—suggesting to the pharmaceutist the advisability of not making a large quantity at a time, and of keeping it closely covered up.

Glycerine ointment has been used in France under the name of *Glycerat d'amiden.* It has been extensively prescribed by my friend, Mr. Henry Lee, and by Dr. Symonds, and Dr. W. Budd, of Clifton. Mr. Schacht, of the same town, wrote a paper on the subject which will be found in the *Pharmaceutical Journal* for 1858. For the pelvic and spinal pains attendant on uterine inflammation I frequently prescribe the following ointments: Sulphate of atropia, two grains; glycerine, half a drachm; oil of neroli, four drops; glycerine ointment, one ounce. A portion of this ointment about the size of a small walnut is to be well rubbed in night and morning. Acetate of morphia, ten grains, otto of roses, one drop; glycerine, half a drachm; glycerine ointment, one ounce.

Plasters.—It occurred to me that by boiling a large quantity of starch in the same quantity of glycerine, the ointment might become stiff enough for all the purposes of plasters. Mr. Bullock therefore boiled 100 to 150 grains of starch in an ounce of glycerine, and obtained a very firm and tenacious compound, to which I have directed attention, in my "Handbook of Uterine Therapeutics," as well calculated to make ready-made plasters, not open to the objections raised against those in common use, which either do not stick at all, or stick so firmly that their removal is difficult. Some of them also smell so disagreeble as to interfere with a patient's sleep, while others cause a skin irritation which was not desired. With the glycerine plasters the patient may continue using the sponge bath or any other bath that may be advisable, as there is no difficulty in removing and replacing the application. This hard glycerine ointment is capable of holding, partly in solution, partly in suspension, all the ingredients of the plasters now in use. It can be made softer by being rubbed up with a little glycerine, and I tell the patient to spread it thickly with a paper-knife on gutta-percha cloth, or on the fluffy side of leather, or on impercable wash-leather. Before re-applying the plaster it is well to spread a little more ointment, and they can be speedily cleaned with a sponge and tepid water. Thus, instead of prescribing a belladona plaster, I order—Sulphate of atropia, four grains; otto of roses, one drop; hard glycerine ointment, one ounce. The salt is to be rubbed down with a few drops of glycerine, and incorporated with the ointment. I give veratria in the proportion, and double the quantity of morphia. The following compound sedative plaster can be made in the same manner:—Sulphate of atropia, three grains; veratria, three grains; sulphate of morphia, eight grains; otto of roses, one drop; hard glycerine ointment, one ounce.

MEDICAL USE OF GLYCERINE.

It is said to be useful in dysentery, and its antiseptic properties justify its trial in cases of ulceration and inflammation of the stomach and intestines. Experience has not confirmed the assertions of those who affirm that it acts on the system like cod-liver oil.—*London Lancet.*

Pharmaceutical Notes.

BY WILLIAM C. BAKES.

Ferro Phosphorated Elixir of Calisaya.

A preparation under the above title has been introduced to the notice of the profession, and having met with some favor, various inquiries have been made for a formula. I submit the following as yielding an eligible preparation.

Take of Pyro Phosphate of Iron,	128 grains.
Extract of Calisaya Bark,	24 "
Sugar,	4 ounces.
Water,	2 fluid ounces.
Tinct. Fresh Orange Peel,	1 " ounce.
Sherry Wine	11 " ounces.

Triturate the three first ingredients in a mortar, add the water, and when dissolved, the other ingredients; lastly, filter through paper.

Wine of Citrate of Iron and Quinine.

For want of a uniform recipe this preparation often differs with different establishments, and to obviate this difficulty I suggest a formula which yields an article having a pleasant flavor, and each teaspoonful containing three grains of the salt.

Take of Citrate of Iron and Quinine,	6 drachms and 24 grs.
Sugar,	4 ounces.
Water,	1 fluid ounce.
Tinct. Fresh Orange Peel,	2 fluid ounces.
Sherry Wine,	11 ounces.

Dissolve the Citrate of Iron and Quinine and the sugar in the water, add the other ingredients and filter through paper.

Suppositories.

After all that has been written concerning these applications, there seems but little room left for further comment, and I design merely to describe a very convenient arrangement for moulding them, which I have used with much satisfaction. It consists of a tin tray with a movable top, perforated with a convenient number of holes; into these are put the suppository moulds, which are made of Britannia ware; the tray is filled with ice water, and the melted ingredients are poured into the moulds, which, being surrounded with ice water, are soon solidified, and, after an interval of five minutes, may be dropped out by tapping against a hard surface. Suppositories made in this manner are well shaped, and present a smooth and even surface. To facilitate the prescribing of suppositories by physicians, some establishments have made a point of numbering them according to their composition. The following list will illustrate this method, and give some idea of the substances capable of being abministered in this form.

No. 1. Butter of Cacao.
No. 2. One grain of Opium.
No. 3. Two grains of Opium.
No. 4. Half a grain of Aqueous Extract of Opium.
No. 5. One grain of Aqueous Extract of Opium.
No. 6. One grain of Opium and five grains of Tannin.
No. 7. Two grains of Opium and two grains of Tannin.
No. 8. One grain of Opium and five grains of Acetate of Lead.
No. 9. One grain of Opium and two grains of Extract Hyoscyamus.
No. 10. One grain of Opium and one grain of Ipecacuanha.
No. 11. Two grains of Opium and two grains of Ipecacuanha.
No. 12. One grain of Opium and half a grain of Extract of Belladonna.
No. 13. One-eighth of a grain of Acetate of Morphia.
No, 14. One-sixth of a grain of Acetate of Morphia.
No. 15. One-fifth of a grain of Acetate of Morphia.
No. 16. One-fourth of a grain of Acetate of Morphia.
No. 17. Five grains of Tannin.
No. 18. Ten grains of Tannin.
No. 19. Ten grains of Mercurial Ointment and ten grains of Camphor.
No. 20. One-thirtieth of a grain of Atropia.
No. 21. Half a grain of Extract of Belladonna.
No. 22. Two grains of Santonin.
No. 23. Five grains of Calomel and two grains of Santonin.
No. 24. Two grains of Acetate of Lead and half a grain of Extract of Stramonium.
No. 25. Five grains of Tannate of Lead.
No. 26. Two grains of Extract of Hyoscyamus.

It will be understood that the basic material is the Butter of Cacao, to which is sometimes added White Wax, to give it a firmer consistence, see Vol. ix, No. 1, p. 5.—*American Journal of Pharmacy.*

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ACTION OF QUININE.—That quinine is a tonic I have long had reason to doubt Quantities of this valuable drug appear to me to be annually wasted in administering it in all sorts of affections as a simple means of increasing appetite or communicating strength. I consider it a vegetable alkaloid, which like others of its class, operates on special parts of the nervous system through the blood-vessels. Why it does so we are ignorant. That vegetable poisons do possess this influence constitutes an ultimate fact in the science of therapeutics. But in a similar manner to that in which opium operates on the brain, strychnine and hemlock on the spinal cord, and other drugs operate on other parts of the nervous system, so, I believe, quinine acts on the ganglionic system of nerves, controlling and diminishing those phenomena of fever which physiology has proved to be produced by their irritation or injury.—*(J. Hugher Bennett) Lancet.—Amer. Med. Times.*

Gleanings from the French Journals.

BY WM. PROCTOR, M. D.,
Editor of the American Journal of Pharmacy.

CHOLESTERIN IN PEAS.—M. Bencke has ascertained that this animal principle usually found in the biliary secretion, exists in the young plants, the seeds of many plants and in olive oil. Five pounds of peas furnished about 20 grains of cholesterin. The peas were bruised, extracted with alcohol, the alcohol evaporated, the soft extract treated with water at 100° Fah. and the watery solution boiled with oxide of lead till the solution on standing becomes limpid. The deposit is collected and treated with boiling alcohol, the alcoholic solution treated with sulphuretted hydrogen, when, after standing twenty-four hours, it deposits cholesterin, which requires to be recrystallized from hot alcohol.—*Jour. de Chim. Med.*

ON THE PREPARATION AND USE OF CRYSTALLIZED HYPOSULPHITE OF LIME.—M. J. Laneau, the Pharmacien in chief of the Hospital of St. John, in a communication to the *Journal de Chimie Medicale*, speaks of the recent suggestions of Dr. Polli, of Milan, and Dr. Jansses, of Brussels, in reference to the use of hyposulphites in diseases due to a morbid ferment. The latter physician has continued the remarkable observations of his Milanese confrere in a pharmaceutical direction, by the aid of M. Laneau, who gives the processes he used.

HYPOSULPHITE OF LIME.

Take of	Flowers of Sulphur	1000 parts
	Quick Lime	400 "
	Rain Water	4000 "

Slack the lime with sufficient of the water, add the sulphur and the remainder of the water, and boil the mixture during an hour and a half, adding water to preserve the measure, then, when cool, filter through white linen, on which a double sheet of filtering paper has been spread, and wash the residue with 1000 parts of water, by which a solution of polysulphide of calcium of sp. gr. 1.141 is obtained. Into this a current of washed sulphurous acid gas is passed by means of a suitable apparatus until the solution is decolorized; the excess of sulphur which has been precipitated, when washed and dried, may be used as precipitated sulphur. The clear solution of hyposulphite of lime is now to be carefully evaporated by a heat not exceeding 140o Fah. (otherwise the salt will be decomposed,) until it commences to crystallize, when the solution is set aside. The yield is 700 parts of hyposulphite of lime in hexihedral crystals, which effloresce in dry air.

M. Laneau also prepares hyposulphate of lime from the *sulphite* of lime by digesting at a temperature between 120° and 140° Fah. 150 grammes of sulphites of lime, 40 grammes of washed sulphur and 500 grammes of distilled water during 24 hours, or more, if necessary, and then filter and proceed as before.

Pure hyposulphite of lime may be mixed with powdered sugar and aromatics without change. The mixture retains its dry state even in a humid air, but the author thinks sugar of milk on the whole is a better excipient for the administration of this salt in powder.

M. Laneau has made various pharmaceutical mixtures of the hypophosphite of lime and soda with hyposulphite of lime and sugar without any apparent chemical change occurring, and he believes that these salts may be used together if required in tubercular disease. The following formulæ are offered:

Syrup of Hyposulphite of Lime.

Take of Crystallized hyposulphite of lime	10	grammes.
Distilled water	20	"
Syrup of Orange flowers	170	"

This syrup has a cool and agreeable taste; its bitterness is slight and easily masked by aromatics, and it keeps a long time.

Tablet of Hyposulphite of Lime.

Take of Hyposulphite of Lime	10.0	grammes.
Gum Tragacanth	1.0	"
White Sugar	188.8	"
Essence of Neroli or mint	10	drops.

Mix the powders, make a mass with q. s. water and the essence, and divide into tablets of one gramme each.

ON A CHEMICAL PROCESS FOR THE DECORTICATION OF SEEDS.—M. Lemoine, Pharmacien, has made known a very curious process of great practical importance, for the decortication of seeds. Seeds in general, and some leguminous and grass seeds in particular, are decorticated by mechanical means slow and expensive. M. Lemoine having asked himself whether chemistry did not furnish a simple and economical process, has applied the disarganizing action which sulphuric acid exercises on the cortical integuments to this purpose. Taking wheat, for example, he operates thus: In a wooden tub he puts 200 pounds of wheat, and he throws over it 30 pounds of sulphuric acid, 66 Baume, and stirs the mixture during 15 or 20 minutes; when 100 pounds of water is added, which is uninterruptedly agitated with the grain for some instants and then decanted.

This first washing liquid is reserved for other uses. After sufficient washing, and the neutralization of the last traces of acid by a solution of carbonate of soda or potassa, the wheat is thrown on coarse meshed cloth stretched on a frame, where in less than an hour the seed is sufficiently dry to be taken in the hands without its adhering to it. In this state it is transferred to other frames in well-aired positions, where the desiccation is effected spontaneously in several days.

The decortication of rye and oats may be effected in the same manner, but for barley it is necessary to employ an intermediate gentle heat, which effects more promptly the carbonization of the envelopes.

The seeds of Croton tiglium, sunflower, beans, lentils, peas, etc., are also treated with heat, and in less than twenty-five minutes the testaceous envelope which covers them is completely destroyed, or sufficiently disaggregated to be removed by washing.

Castor oil seeds present some practical difficulties that a longer experience will doubtless dissipate.

Nuts, filberts, bitter and sweet almonds, ground nuts and flax-seed, are treated cold with remarkable facility.—*Jour. de Phar.*

SUBSTANCES WHICH SHOULD NEITHER BE HEATED NOR MELTED IN PLATINUM CRUCIBLES.—According to Dr. Hager, the following operations cannot be performed:

1st. The fusion of alkaline sulphurets, as well as the reduction by charcoal of sulphates of the alkalies and alkaline earths.

2d. All operations which produce the disengagement of chlorine, bromine iodine and fluorine; consequently it cannot be used for aqua regia.

3d. All operations which involve the separation of silicic acid, which at a red heat acts on platinum and renders it brittle.

4th. The fusion or heating of nitrates, especially those of the alkalies and alkaline earths.

5th. The heating to redness of the caustic alkalics and alkaline earths.

6th. The fusion of metals, especially those very fusible, as lead, bismuth, tin and cadmium, and particularly when a red heat is used to reduce metallic oxides.

7th. Heating to whiteness metallic oxides, which give up oxygen at a high temperature, as for example, the oxides of lead, bismuth, nickle, copper, etc.

8th. The heating of phosphoric acid and the acid phosphates with carbon or other deoxidizing agents, because of the tendency to eliminate phosphorus which acts on the platinum. —*Jour. de Pharm., Mars,* 1863.

SUBNITRATE OF BISMUTH AS A DISINFECTANT. By M. Reimslagh.—The subnitrate of bismuth, employed in fine powder on the surface, afterwards acts at the same time as a *cicatrizant* and a disinfectant.

It succeeds particularly on suppurating wounds, presenting a weak tendency to cicatrization. A thin layer of the powder (two or three millimetres) is put on the wound, and kept in its place with a piece of wadding or adhesive plaster. The wound soon assumes a better aspect, and healing is not slow to manifest itself.

M. Rienslagh has also used this agent in the cases of specific and scrofulous ulcers, when the cicatrization was soon complete.

The disinfecting power of subnitrate of bismuth is not less decided. It is sufficient that only one application of this powder be made, to observe the next day the fetid odor of the ulcer completely disappearing.—*Jour. de Pharm Mars,* 1863, *from de Ther.*

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UMBILICAL FISTULA.—Two cases of an unusual kind of fistula have presented themselves at the umbilicus, from which bile has been, and still continues to be discharged.

The following is an instance of a more common form of umbilical fistula from patency of the urachus:—

Open Urachus.—A little boy, aged 2 years, was brought in July with a papillary projection at the umbilicus. In the centre of it was an opening, from which transuded at all times a fluid which was decidedly urinous in smell and appearance. A ligature was firmly applied to the button-like protrusion. After a few days it dried up and then fell off, and the fistula seemed permanently closed.

These papillary moist looking projections at the umbilicus are not very uncommon; they are often quite unconnected with fistula — they are safely treated by ligature.—*Med. Times and Gaz.*, March 28th, 1863.

DISCOVERIES AT POMPEII.—M. Fiorelli, inspector of the excavacations, has discovered the hardened ashes of the perfect mould of a man in a lying posture, the skin of which had dried up, but the skelelon remained intact. M. Fiorelli caused plaster of Paris to be poured into the form of the Pompeiian, and the casting succeeded perfectly, with the exception of two fragments of an arm and a leg, where the mould was incomplete.—*London Lancet.*

ORIGINAL PAPERS.

A Case of Compound and Comminuted Fracture of the Surgical Neck and Shaft of the Humerus.

REPORTED BY G. L. SIMMONS, M. D., OF SACRAMENTO.

M. F., a young machinist, of excellent habits and good muscular development, on his return from a shooting excursion during the flood of March, 1862, reached into the bow of his boat to select a gun from a number placed in that situation, and drew towards him a No. 10 gun, heavily loaded with No. 4 shot and patent wads. In some way the trigger became entangled, and the weapon was discharged when its muzzle was within eighteen inches of his clothing.

In an hour afterwards, I was called to take charge of the case, and found the patient much prostrated, and very anxious with regard to the fate of his left arm, which he had been told "must be amputated at once to save his life."

An examination showed a terrible wound of the upper extremity. The charge had entered the inner aspect of the left arm, just below the axilla, and in front of the great vessels, ranged outwards and slightly upwards, and made its exit on the opposite side of the limb. At the points of entrance and exit, the wounds were very irregular, being three inches long at the former, and four inches at the latter place.

There was excessive contusion and laceration of the soft parts, and the wound extended deeply among the tissues. The apex of the deltoid muscle was completely shot away, and only a strip of integument, an inch in width, prevented the outer and inner wounds from uniting. The upper part of the humerus involving the surgical neck was completely fractured and comminuted for two inches in length, and the lesser tuberosity was exposed by the laceration. On consulting with Dr. J. F. Montgomery, who attended the case with me during its progress, it was decided to make an attempt to save the arm, although by deferring primary amputation the patient would run a risk of losing the limb, and perhaps his life also. This course was adopted after a free conversation with the patient who was anxious that the attempt should be made. Chloroform was administered and the following removed from the wound. A patent wad with shreds of clothing. A piece of the Humerus two inches long and seven eighths of an inch in width. A piece two inches long and three eighths of an inch in width. Two irregular pieces, one inch long and half an inch in width, together with several smaller fragments. All of these pieces were of the usual thickness of adult bone, from the outer compact tissue to the medullary canal, and were principally shot away from the anterior and inner aspects of the Humerus. The upper fracture was oblique extending into the surgical neck, while externally a fragment of the shaft remained attached to the head. This fragment was pyramidal in shape, with its apex pointing downwards. The lower part of the fracture was also oblique, with its obliquity in the opposite direction. The upper and lower fragments were separated an inch by muscular action.

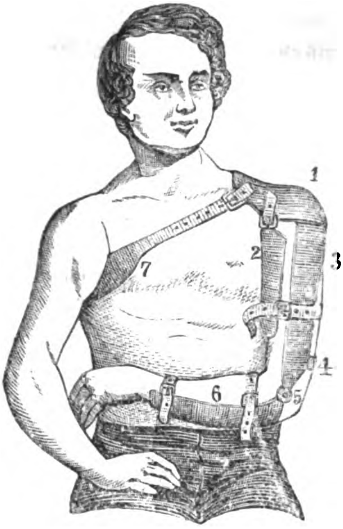
After the operation, the limb was placed on a pillow in a semi-flexed position; cold water dressings applied and a full anodyne administered. In the usual time, suppuration was established, and the cold dressings were changed to warm ones. The case progressed finely for two weeks, not an unfavorable symptom occurred, and it was deemed advisable to attempt to bring the upper and lower pieces of the humerus in line. For this purpose, the patient was again placed under the influence of chloroform, and the points which were not over a line in diameter, were drawn together with silver wire. A medium sized pad was then placed in the axilla, and an angular splint, with spaces for the necessary discharges, was strapped to the limb and summit of the shoulder by adhesive straps. Under this treatment the case went on well, and the arrangement of the pad and splint was satisfactory, so long as they remained clean and firm. The weather was very warm and the discharges great, consequently the dressings soon became foul, and required frequent renewal. A few weeks afterwards it was thought best to adopt the gutta-percha splint, as recommended by Professor Hamilton. A wide strip of stout gutta-percha was carefully moulded to the back and sides of the limb, from the top of the shoulder to the fingers; apertures were cut for the discharges, and the whole then strapped to the parts by adhesive straps. This splint was worn with great comfort by the patient, and seemed to meet every indication connected with the case, except that of cleanliness. In spite of every precaution, pus would run down between the skin and splint, and hence it also required to be frequently taken off and cleaned. This form of splint, however, can be easily removed as a whole, and if carefully moulded to all the irregularities of the parts, nothing can excel it in comfort to the wearer. During three months, the large external wounds became filled with new tissue. The bony structure grew rapidly, and a few small spicula of bone from time to time made their appearance at the opening, and were removed. While using this splint, the patient was able to walk out, and accepted the post of night watchman at the iron works. After a short service, he was taken with a severe chill, and an erysipelatous blush appeared at the wound. This increased very rapidly down the limb, and an abscess formed near the elbow. For a fortnight, or whilst the patient was laboring under the erysipelatous action, all the dressings were removed, and the limb kept on a pillow.

In the July number, 1862, of the *London Lancet*, I noticed a description of a new metallic splint for compound fractures of the humerus, designed by C. Evans. As it appeared to possess certain advantages over the usual form, I ordered one for my case, with such alterations as were deemed necessary. The suggestions of the patient, he being a practical mèchanic, materially aided me in this object. The success of the new splint was decided, and it is difficult to conceive of a better arrangement for treating fractures of the humerus, or resections when they occur near the shoulder-joint, and where it is necessary to keep the shoulder in a firm position. By its use my patient's limb was kept in close apposition to the splint, the dressing of the wound was greatly facilitated, and by means of the movable joint at the elbow, the angle of the limb was changed at pleasure, and motion kept up at that articulation, without disturbing the point of fracture or removing the dressings. Indeed, so perfect was the arrangement, that I am confident the success of the case was insured by its application. From the commencement of its use there was no complaint of inconvenience or abrasion. The openings soon closed, the bony tissue acquired increased solidity, and the patient was able to place the new splint in his coat-sleeve and commence gradual motion.

During the following winter he commenced work at the lathe in the iron works, and from that time to the present has been steadily employed. The natural movements of the limb were gradually acquired, and he now has every motion, except the full action of the deltoid. For all practical purposes, the cure is complete. And perhaps nothing can demonstrate the strength and steadiness of the muscles of the left arm better than by referring to the following item, which I recently cut from our evening paper:

> "TARGET PRACTICE.—Yesterday afternoon, at the Tivoli House, there came off a target shooting contest between John Stuber and Mark Foster. A week or two ago, Foster had thrown out a banter that he would shoot with any of the Sharpshooters, at a rest, and off hand with any of them except H. Rice. The affair culminated yesterday. Stuber and Foster with globe-sighted rifles fired off hand at a target 180 yards distance, for a purse of ten dollars a side—each to fire a string of ten shots. Foster won the contest and the purse. The victory will be looked upon as the more remarkable when it is recollected that about eighteen months ago Foster was seriously injured in the left arm by the accidental discharge of a fowling-piece.

The splint is shown in the following wood-cut, engraved from the original drawing, by Barber, of Sacramento, and a comparison with that recommended by Dr. Evans will indicate its advantages, particularly in ths matter of the movable joint. The splint is made of good sheet copper, which is afterwards tinned and lined with soft buckskin.



To secure a perfectly fitting shoulder-pad (1) which is an essential feature, I took a plaster cast of the shoulder, extending over the clavicle and scapula. Upon this cast a copper-worker moulded a perfect fit. The shoulder-piece has the same buckles on the back as represented on the front.

The axillary splint (2) is made concave on its superior and inner surfaces —as a crutch head of soft buck-skin, and can be strapped to the shoulder-pad (1) by the buckles on the front and rear to any degree of firmness required. It is also strapped to the arm-piece (3) at its inferior part.

The arm piece (3) is about two and a half inches wide, and extends along the outside of the arm. As it approached the elbow-joint it is divided, and while one part is continued down to form the joint (5) on the outside, the other part (4) is curved around the arm to make another joint directly opposite to (5). By having these two joints, the fore-arm piece (6) is sustained without difficulty. The axillary pad and strap (7) for the opposite side should be made in a slightly crescentic form, and well padded, in order that the main shoulder piece may have a firm support. The arrangement of the straps and buckles is well shown in the drawing, and if these are properly secured there is no need of additional bandages.

SACRAMENTO, July 1863.

NEW REMEDY FOR BURNS.— A blacksmith in the South of France has just been fined for practising medicine. He is famous for the cure of burns, and used to request from the patient a five franc piece, which he held over the burn while uttering cabalistic words, and then put the coin into his pocket.—*London Lancet.*

Remarks on Delirium Tremens,

(As Observed at the "Home for Inebriates.")

BY A. P. HAYNE, M. D., SAN FRANCISCO.

A connection, as attending physician upon the above institution, during the past nine months, has afforded an opportunity which seems to warrant, if it does not justify us, in offering a few reflections upon a subject which may appear to have been already exhausted by medical as well as non-professional men. Believing, however, that it is a topic of deep interest to the moralist, and philanthropist, as well as to the scientific observer, and "that the evil habit comprehended under this familiar term constitutes peculiarly the *blot* upon our national character," we deem no apology necessary for what might otherwise appear a work of supererogation. We agree with an eloquent writer, that "to effect the cure of the drunkard would be worth the labor of a life, and that he will be a second Jenner who shall discover the means of protection or restoration from such misery and debasement." It is not necessary at this day to enter into any elaborate argument in proof of the wide-spread evils, or the devastating consequences of intemperance. The evil is too self-evident, and its teachings plainer than "the writing upon the wall." It requires no prophet to explain this modern vision of Beshazzar. "With its immediate consequences we are all so familiar that the lesson of horror early imprinted on the mind of the young Spartan, by the exhibition of a drunken Helot, is entirely lost upon us. The tottering, uncertain walk, the broken, confused speech, the red eye and the distorted countenance, shock us no longer, and even the total, though temporary, deprivation of reason, the connecting link,

'Which makes man kindred with the Deity,'

serves rather as a matter of jest and ridicule than of pity and dismay." We sport with this destroyer, "as the Indian plays with his venomous serpents," but, unlike him, we "possess no talisman to protect us in our thoughtless rashness." "Man dies by famine, by pestilence and by the edge of the sword. His joys, his hopes fall before the withering blast of many and diversified agents of evil; but to *this cause* must be conceded the first place in the list of those malignant influences, whether we regard the number and value of its victims or the extent and amount of ruin which follow in its train." (Dickson's Theory and Practice of Medicine) Such being the case, and such being the magnitude of the evil, it is surely worth our time and abor to investigate its causes and endeavor to point out the means within our reach for its alleviation. To affect its *cure* rests unhappily not in mortal power, but in the individual himself. All that the medical man can do is to carry the unfortunate victim safely through his temporary insanity, and after reason has resumed her throne, to point out the path of safety. We may "minister to a mind diseased," but we cannot impart that strength of will, or give to the sot that indomitable spirit of resolution which is the "first ray of hope" to cheer him in his upward toil. Before entering upon the discussion of the disease and its treatment, it may not be entirely inappropriate to answer the question, which every medical man has frequently put to him, "What constitutes *intemperance?*" This may be understood in two different meanings of the term, morally and pathologically. The answer however, to both is alike. He is intemperate who oversteps the bounds of nature. But can we fix these limits, and are all equally susceptible to the admonitions of excess? Our answer to this is, that the peculiarities of each individual temperament are his only sure guide. The old proverb, "*neno repente fit turpissimus,*" is peculiarly applicable to this disease. The best answer, however, has been so well expressed by another that we quote his words: "We commit excess and overstep the limits of temperance when we do anything that shortens life — when we diminish our capacity for the duties of life, and when, the most of all, we derange our mental faculties." "He who has arrived at this stage," says the same writer, "is no longer a temperate man." "Although, as yet no trembling of the hands or faltering of the tongue may give warning of his danger; no eye of the domestic or social circle be open to see his true condition; no broken-hearted one tremble at the sound of his distant footstep, or children shrink from the glare of his savage and unsteady eye." All this impends, and will be developed, "as surely as the alternation of day and night, or the unchecked progress of the seasons."

With these preliminary observations we pass to the consideration of the disease itself. The best definition perhaps is, that it consists "in an exaltation of the vital properties of the brain and nervous system by the influence of alcohol absorbed into the circulation." (Levillé.) Be this correct or not, one thing at least is certain — that its main exciting cause is a sudden abstraction or diminution of some alcoholic stimulus. Professor Dickson and others maintain that there are two distinct modes of origin: one from the cause just mentioned, and the other during the continuance of the accustomed stimulus. We are disposed, however, to doubt the correctness of the latter cause, and would rather classify such cases under the order of those spoken of by Dr. Gerhard, "in which the derangement of some important organ or vomiting" has prevented the longer indulgence, and thereby cut off the usual supply of stimulation. This is the view taken by most of the authorities of the present day. If we seek to penetrate further, and ask in what consists "the anatomy of drunkenness," all that we can learn is, "that it is the property of the poison to which it owes its existence to affect with derangement, both functional and structural, every organ and tissue of the body." The indurated liver, or that condition of the brain known as "atrophy of the spirit drinker," so common in those who have suffered, repeated attacks of delirium tremens, may perhaps be exceptions to this general definition. We regard it, however, as an established fact, that the habitual sot may be said to be in a state of "definite predisposition," which is brought into action by the loss of alcoholic stimulation. "There is little doubt," says Professor Wood, "that could we look into the secret operations of the brain in this disease, we should see the springs of the organ everywhere relaxed, its machinery moving languidly and feebly, and the streams of its influence sent forth scantily to their destination." The vacuum (so to speak) thus created gives rise, says he, "to disturbances not unlike those arising from repletion, just as the wind and the storm, in the physical world follow the diminution of the sun's influence, as well as its increase." (Theory and Prac. Med., p. 727.)

We lay stress upon this point, as upon our proper understanding of it depends the correctness of our conclusions and the success of our treatment. We pass over the questions whether the disease may not also be the result of a too sudden abandonment of opium, tobacco, or other stimulo-narcotics. Although a state of nervous exhaustion may be the result of such indulgencies, we have never seen a case resembling true delirium tremens produced by such causes alone. In this opinion we are sustained by Professors Dickson, Wood and others. Dr. Wood says on this subject: "From my position in the Pennsylvania Hospital of ten years, in which I have had constant opportunities of witnessing cases of delirium tremens, I have never yet met one which I could trace to the use of opium."

The cause of the disease, then, being known, we pass to the consideration of its character and general features. Delirium tremens is essentially a disease of "self-limitation." Most writers divide into three distinct stages, characterized chiefly by intensity of symptoms. The first stage, however, commonly known as "horrors," may with propriety be considered as merely a state of incubation. It is ushered in by a state of restless uneasiness accompanied by nausea, loss of appetite, and more or less trembling of the hands. The mind and thoughts are gloomy, and the countenance anxious. This stage is often relieved by a single dose of medicine, or a moderate amount of stimulant, especially if the subject be not a confirmed sot; or it may continue, and usher in the second stage, which we regard as the true disease. In this stage we have an aggravation of all the preceding symptoms, accompanied with inability to sleep and hallucinations. These hallucinations are at first, in a great measure, under the control of the will, and generally vanish in the day and return towards evening. The patient is restless whenever left alone, and is unwilling to be left in a dark room. His visions are nearly always of an alarming character, although sometimes they partake of the grotesque. He understands them perfectly, and will tell you that "they are but fancies." The skin is hot and dry, or moist and clammy, and the perspiration has a peculiar saccharine odor. The pulse is soft and quick, and sometimes full, or hard and jerking. Occasionally he falls into an uneasy slumber, or half-conscious state, from which "he starts suddenly and afrightened."

After a variable duration — proportioned to the exciting cause or temperament — this stage, if not arrested, ushers in the third, the chief characteristics of which are an aggravation of the hallucinations, accompanied with incoherence of ideas, contracted pupils, and generally profuse perspiration.

The frenzy is wilder and more vivid, and no longer under the control of the will. The pulse sometimes becomes very rapid and thread-like, or it may scarcely be felt from the nervous twitchings of the muscles. In this stage convulsions not unfrequently occur, and when they do, are generally a fatal symptom. The patient also frequently attempts self-destruction, or will leap from a window, or, in his desperate struggles, inflict bodily injury upon his nearest and dearest friends. "He is condemned to die, and in imagination goes through all the pangs of mental sufferance." His mind is a chaos and wreck of confused thoughts and terrible imaginings, against which he struggles until he sinks into a comatose state of exhaustion, or is thrown into frightful convulsions, more dreadful, if possible, than his previous sufferings. In this state death draws its curtain over the sad scene. Such is a brief and not overdrawn picture of the majority of cases of delirium tremens. And this brings us to the consideration of its treatment, or the means of alleviation.

There are three modes of treatment, which have each received the approval of distinguished advocates; we mean the *Narcotic*, the *Stimulant*, and the *Emetic plan*. Each of these has its zealous advocates, and each lays claim to a well established reputation. We might mention a fourth plan, which consists alone in solitary confinement in a dark room, were it not that this is warranted only in slight cases, and even then is an unnecessary measure of severity, not to say cruelty. Each of the systems of treatment above mentioned is based upon the peculiar efficacy of the prominent agent used, thus: the advocates of the Narcotic plan rely chiefly upon opium and its preparations; the Stimulating upon alcohol, and the Emetic upon tartarized antimony. The first bases its claim upon the well known effects of opium in tranquilizing nervous irritation and inducing sleep; the second upon the power of alcohol of supplying the loss which the brain suffers from a too sudden withdrawal of stimulus; and the third from the well established sedative and tranquilizing action of the act of vomiting. The end and aim of each, however, is identical, viz; to induce sleep, that boon to the troubled spirit, which,

"Swift on downy pinions flies from woe,
And lights on lids unsullied with a tear."

We pass over certain "hygiene regulations" which are equally applicable to each of these systems, and also those "accidental complications" which render it necessary to adopt any form of treatment to the peculiarities of the case. There are other considerations, however, in which two of these systems claim advantage over the stimulating plan. These are in a moral point of view. "Experience has shown," says one of the ablest of modern writers, "that the cause of this disease is the suspension of alcoholic drinks, and the cure, we are told, is to be effected by its restoration. But a high moral consideration here interferes. It seems as if nature herself had kindly interfered by this disease in checking the drunkard in his downward career, and offering him an opportunity of retrieving his lost position. Is the physician to step in and obviate this kind provision of nature by reapplying the original poison, and thus placing the patient in a position certainly not more favorable, if not more unfavorable, than before the occurrence of delirium?" It appears to us that there is much force in this objection, and that by stimulating with alcohol as our only remedial agent, we run the risk "of confirming him in his evil habit and of hastening the last fatal result, which must come in one shape or another if the habit be persevered in." "The practice may answer in hospitals," says Dr. Dickson, "but in private practice it is ruinous." "No sooner is sanity restored than the patient becomes his own master, or, we should rather say, the slave to his morbid inclinations, and loses all the benefit which abstinence would have afforded." It is chiefly in this point of view that the advantages and benefits of the narcotic plan consist. We have in opium or other narcotics a "stimulus which supports the brain," while, as Dr. Wood well remarks, "it possesses the great advantage that it can be withdrawn gradually and without the knowledge of the patient, who finds himself almost unconsciously placed upon his feet, prepared to commence afresh the journey of life, it may be with better purposes and more power of will to control them."

The advocates of the stimulating plan, among the foremost of whom stands Dr. Gerhard, base the claim of their method chiefly upon its success and that it has "diminished the mortality of the disease and rendered it almost always curable." They also deny that it encourages the habit of spirit-drinking, but say, "that if all remains of the disease be completely removed, the remembrance of the attack and its accompanying horrors will in general preserve the patient from a renewal of his habits." In a tabular statement, given by Dr. Gerhard of cases treated in the Pennsylvania Hospital from 1834 to 1841, inclusive, the mortality was diminished from one in eleven to one in sixty-four and five eighths. "The rationale of this plan, says Dr. Gerhard, "is simple enough." "The excessive stimulation which these persons have long been subjected to is not only followed by a corresponding state of depression, but with an extreme disorder of the nervous system, of which tremors and hallucinations are the essential characteristics. The stimulating practice relieves this by substituting its own peculiar action, which if properly used, is never sufficient to intoxicate." The same high authority, however, goes on to say: "I am perfectly well aware that alcoholic stimulants are not absolutely necessary in the majority of cases of delirium tremens, but that it, like all self-limiting diseases, will in a number of cases get well under all treatments, and of itself." The Emetic plan owes its advocacy chiefly to Dr. Klapp, "who contributed greatly to its introduction." It is based, as we have already remarked, upon the admitted action of this class of medicines in calming and reducing mental excitement and predisposing to sleep. It is rather, however, in "its general," than in "its local effects," that its chief virtue lies. It is not necessary to say more on this system, as its effects are readily understood by all. We have thus briefly, and we trust impartially, glanced at each of the three principal plans of treatment that have been proposed, and shall occupy the remainder of this article (already longer than we had intended) in giving the plan, or *combination of plans*, which after a fair trial of each, we have been led to adopt in the institution above mentioned. We have been guided in the selection or adoption of our plan by a two-fold consideration: first, the speedy cure of the disease; and secondly, the use of such means as are best adapted to the moral condition of the patient, and which offered the best prospects of prevention from subsequent relapse. We have found, after a careful trial, that *a combination of the Narcotic and Emetic plans* answers these ends better than either separately, or than any one of the three alone. We do not, however, deny that there are many cases requiring the stimulating plan of treatment; but even in these we prefer to combine it with one or the other of the remaining two. The usual formula which we have found most adapted to the end in view, supposing the case to be one of decided delirium tremens, and no contrary indications presenting themselves, is as follows:

Pulv. G. Opii. grs. vj to viij
Ant. et Potass: Tart. grs. jv to vj

In three or four powders. S. One to be given every hour, or every two hours, according to circumstances. If the case be not urgent, these powders are given at dark; if urgent, at once. They are relied upon mostly in cases in which the pulse is not over one hundred, and where the hallucinations are accompanied with protracted pervigilium. During the day our treatment consists chiefly of a combination of Tinc. Lupulin with Tinc. Valerian, Chloroform, or Hoffman's Anodyne Liquor. Usually the following formula is ordered, or kept already prepared:

℞.

Hoffman's Anodyne Liquor,	℥ ij
Tinct. Valerian,	ʒ ij to ℥jv
Aquæ,	ʒ jv

♍.

A table-spoonful of this is given every hour, according to circumstances, either with or without the addition of twenty drops of chloroform to each dose. In cases in which the pulse rises above one hundred, or in which there is much cardiac disturbance, we have tried the large doses of Tinc. Digitalis, as recommended by Dr. Blake and others, but, we must say, without the success we had anticipated. In some cases its action was prompt and satisfactory, while in others we have administered one, two or three doses at intervals of two hours, without any benefit. In some cases laudanum, in combination with chloroform (60 or 80 drops of the former to 15 or 20 of the latter) appears to have a better effect than solid opium. In all cases in which there is a decided sinking of the pulse, we resort at once to stimulants, (Brandy in combination with Hoffmann's Anodyne), but as soon as it has risen to its usual standard, we discontinue it, and rely upon the means already indicated. In cases in which convulsions occur, our chief reliance is upon diffusible stimulants—the preparations of Ammonia, and Brandy, with external counter-irritation, cold effusions and stimulating enema. As a preliminary measure to our treatment, when requisite, and where the case admits, we administer a cathartic of aromatic syrup Rhei; salts and senna. Among the more recent remedies recommended, the best, perhaps, is found in Valerianate of Ammonia, in five or ten grain doses, in coffee, or in "Pierlots Solution," in ʒi doses In protracted cases of vomiting, the creosote mixture, or the combination of chloroform with effervescing drinks, or the valerianate of bismuth we have found most useful. These measures constitute the chief features of the treatment we have adopted. The advantages of the plan proposed are, that the duration of the disease is *shortened* by relying chiefly upon opium, and tart-antimony in combination, and that it combines all the *virtues* of the *stimulating* plan, by *substituting* a *different, more permanent, and no less certain* stimulant, without its dangers. It has advantages over the emetic plan, inasmuch as we avoid the vomiting, which is often one of the most *troublesome* and *difficult* symptoms to control, and at the same time gives us the advantage of the *sedative action* of the emetic substances used. It would exceed the limits of this article were we to give the *variations* in treatment, which peculiar idiosyncracies demand. Our desire has been, not so much to present a *system of formulæ* (familiar to every medical man), but simply to state the system pursued, and *our reasons for adopting it.* Without any disposition to claim peculiar merit to ourselves, we will state that during the past nine months there has been one hundred and fourteen admissions to the "Home," and of that number three have died. One of these three was admitted in a moribund condition, and died in a few hours. The other two were desperate cases, and held out from the first but little hopes of recovery. The fatal cases were *all* treated with *stimulants.*

With regard to confinement or restraint, we would like to say a few words in conclusion. In all cases in which either or both can be dispensed with, we think it decidedly best to do so. If no great amount of hallucination be present, we simply place the patient in bed, and use no restraint beyond kindness and persuasion. In violent cases, the ordinary jacket slipped over the head, and laced in the back, reaching to the hips is all that is requisite. The use of hand-cuffs we consider not only unnecessary, but positively injurious. Cold affusions, and the shower-bath are excellent adjuvants, and as soon as convalescence is established, the patient should be allowed to get up and take a bath, and allowed the freedom of the house and reading-room. We would strongly urge a judicious system of *occupation* during complete convalescence, for there is often a state of moral depression at this period which is terrible to witness, as if

> ———— "they had striven
> With nature's feebleness, and been o'ercome."

Active light employment is the best remedy for this unhappy condition. Our endeavor always is to maintain a cheerful and sympathetic manner, and impart confidence and hope. We have often quieted the most frightful fancies by calmly reasoning with the unhappy victim, and showing him the unreal nature of the hallucinations. If there be any disease in the whole catalogue of human frailties, in which human sympathy is of avail, it is in this—for who can picture the indiscribable horrors which rack the mind and torture the deluded fancy of the raving inebriate? Hard must be the heart that can look without pity, even upon the most debased victim of this terrible malady. During convalescence especially, much can be done, by appealing to all the manly and high-toned attributes of our nature. If there be' in the strict acceptation of the term, any one entitled to the appellation of a *hero*, it is best exemplified in him who has had the moral courage—the self-resolution to free himself from the dominion of a vice, which, like the folds of some hideous monster, has gradually encircled him, until he has become powerless and helpless, and then, like the fabled basilisk, preys upon his vitals, in an agony of ceaseless torture, to which the torments of a future state are but a dim reflection.

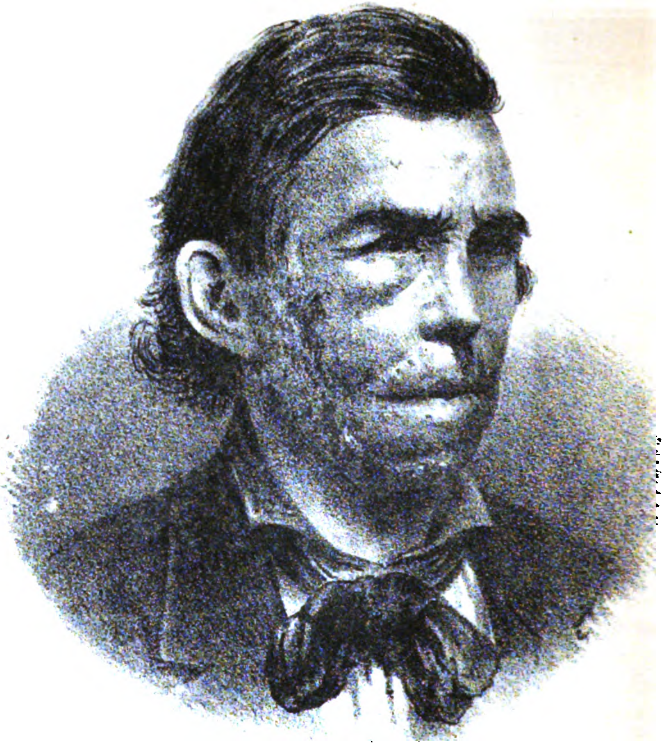
Such is a brief outline of this common and unheeded malady. The subject is almost inexhaustable, and we might point out the numerous and bright examples of its victims, did time permit or occasion require. We prefer, however, to draw the mantle of charity over the sad picture, (would it were the mantle of oblivion), and to look upon these other examples, which carry the instructive and cheering lesson of regenerated, self-relying nature, rising from its ashes of degradation, and springing into life, usefulness and honor. To such, the institution with which we are connected, is indeed an asylum and a blessing, and to him who leaves its portals, with the benefit of the experience therein derived, we would say at parting, in the language of the poet—

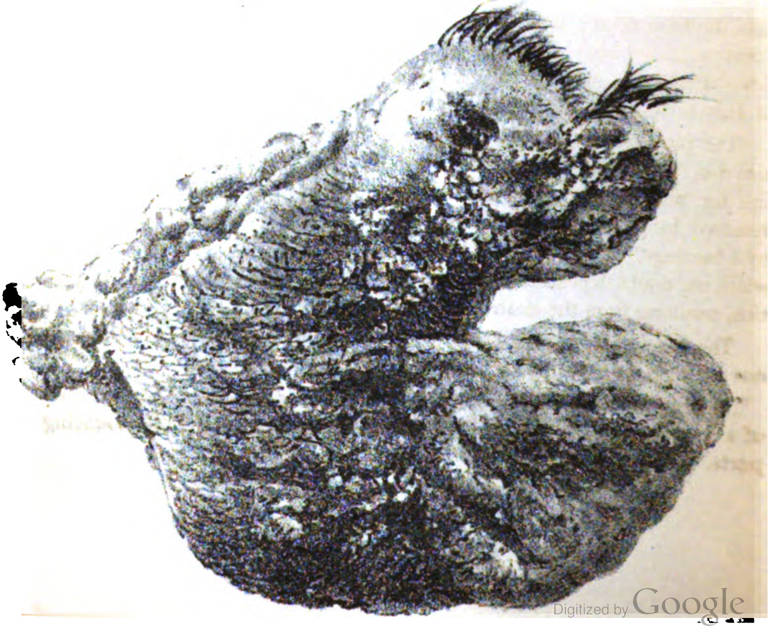
> "And while thus a self-denier,
> Stand the swalwart self-relier,
> Bravely battling on.
> Though alone—no soul alive
> Ever stoutly dared to strive,
> But saw the battle won."

* * *

Uretohscope.—M. Desormeaux, Surgeon to the Necker Hospital of Paris has used for some ten years past a urethroscope which has very nicely answered the purpose, after having been gradually improved and brought nearer to perfection. The *Gazette des Hopitaux*, of the 14th instant, states that structures have been clearly seen with the instrument, which consists of a tube containing a metallic mirror, pierced in the centre, and placed at an angle of forty-five degrees with the axis of the instrument. The tube ends in a piece which is intended to be connected with the catheters introduced either into the urethra, the nasal fossa, the pharynx, or any deep canal. The opposite end of the tube is connected with a diaphragm pierced in the centre like the mirror. At right angles with this tube, a second one is fixed, in which a gas-lamp is placed. The light of this lamp, reflected by a concave reflector, falls in the slanting mirror, which lat er directs it upon the region to be examined. A lens may also be used to cause the rays of light to converge on the object to be viewed. Some nicely is required in the handling of the instrument, and a certain amount of practice is indispensable; but the instrument bids fair to turn out very useful. The catheters are open at the side, to allow of the introduction of sponges, etc.—*London Med. Rev.*—*American Med. Times.*

PLATE TO Dr TOL





Cheiloplastic Operation.

BY H. H. TOLAND, M. D.

MATTHEW MORRIS, aged 55 years, had suffered about three years with cancer involving the lips, as well as the face between the chin and the angle of the inferior maxillary bone. During his stay of three or four months in the County Hospital, all the ordinary remedies were employed without any beneficial effect. To exsect the diseased tissue without supplying the defect and removing the deformity that must necessarily result from such an operation, would not improve his condition; consequently, I determined to take from the upper part of the face a sufficient quantity of the integument to remove the deformity.

April 7th, 1863, at St. Mary's Hospital, after the administration of chloroform, a flap was raised corresponding with a pattern that had previously been prepared, and the diseased mass removed. Upon bringing the flap into the position it was intended to occupy, it corresponded perfectly with the original parts, and no difficulty was experienced in securing it with numerous points of the interrupted silver suture. The edges of the wound on the side of the face were approximated as closely as possible, and the water dressing applied.

Notwithstanding he suffered from erysipelas, which extended to the scalp, union by the first intention occurred, and by the expiration of the fourteenth day, the cicatrix was sufficiently firm and the circulation so well established that the base of the flap was divided and properly adjusted, and a large tumor removed from the neck, near the inferior maxillary bone of the same side. From this operation he recovered rapidly, and was able by the 10th of July to return home and engage in his ordinary business.

The plate represents his appearance three months after the first operation was performed, and was taken from a photograph by Johnson. The lips for several weeks were thicker than natural, although that was soon removed by pressure made with sheets of lead applied and firmly secured by a bandage. Some swelling remained under the right eye when he left, which no doubt depended entirely on the obstruction of the venous circulation, resulting from the cicatrix on the side of the face.

The second plate represents the lips and adjacent parts removed; although not so large, it shows the extent of the operation.

When he left San Francisco, his health was good, and no evidence existed of a return of the disease, either in its original location or the surrounding parts.

On Myalgia: with Cases.

BY GERRARD GEORGE TYRRELL, M. D.,
Licentiate of the Royal College of Surgeons, Ireland.

THERE is no class of cases that give a medical man more trouble and annoyance, and are less amenable to general treatment than those cases of myalgia affecting the sacral, dorsal, and pectoral regions. I use the term myalgia, as the particular pain to which I allude, is, I believe, essentially muscular, and frequently confined to certain muscles or sets of muscles easily recognised. The affection is most commonly met with among the mining population, and its seat is often determined by the particular kind of mining the party is engaged in—quartz miners complain of their chest, placer miners of their dorsal and sacral regions. The pain is often so severe as to prevent their working; but more frequently the complaint is of a dull ache, only ceasing when in the horizontal position.

The history generally given is, that after some notable exertion, such as lifting a heavy rock, or pushing a heavily laden car, "something gave way in the chest, and the pain has remained ever since," or, if a placer miner, he tells you that the constant stooping has "broken his back."

Now, on stripping one of these patients and asking him to shew you where the pain is, he will almost invariably lay his hand on the origine of the pectoral muscles; if the case is recent, and you compare those muscles with their fellows on the opposite side, you will often find them smaller, and on firm pressure, tender. Ask him to throw his arm quickly behin d his back at once he says: "That hurts!" and will also tell you that he cannot raise his arm, or use the pick with the same freedom or strength as formerly. He is firmly convinced that his chest is extensively diseased, and will not be satisfied without a stethoscopic examination.

If your patient complain of his back, he will place his hand on the junction of the last lumbar vertebræ with the sacrum as the seat of pain, and here firm pressure will usually elicit tenderness. If he remain in the stooping position a short time, and then suddenly become erect, pain is at once evinced. He will tell you that when he rises in the morning he is as well as ever, but when he has worked a while his back commences aching and he gets no ease until his labor is over.

Now, in the treatment of these myalgic cases, where you can discover no rheumatic, or other diathesis usually accompanied by muscular or fibrous pain, and where the patient can distinctly trace the origin of the pain to some particular event; in these cases I think you will be disappointed in the use of colchicum, alkali, opium, etc., etc., but will derive great benefit from the local application of the metal button recommended and used by Dr. Cornigan, of Dublin, in the treatment of peripheral neuralgia. The button should be heated over a spirit lamp until it is warm enough to blister, if necessary, and then rapidly passed from spot to spot over the whole of the affected muscles. The patient dislikes the operation very much, but if done properly and without vessication (which is seldom necessary), usually gets such relief as to induce him to submit to the necessary repetitions until cured. This local treatment of myalgic pain has, in my hands, met with encouraging success, but it is sometimes prudent to combine it with constitutional treatment, as in the following cases:

Mr. McC., aged thirty-seven, a pale, unhealthy-looking man, a miner by occupation, came to my office August 27th, 1862, complaining of pain in his back whenever he worked hard or used any extra-exertion; he has been suffering with this pain for ten months. I examined this man's urine carefully, but found it normal. Suspecting a rheumatic taint, I ordered him the following mixture:

℞ Potas. Iodide, ʒi
Ex. Colchia, fl.,
Tr. Opii, aa ʒiss
Tr. Guaiaci Aromat. ℥iss
Mucilage, Gum Acacia, ℥vj
M. Ft. mist. Cap. coch. mag. ter. in die.

And "fired" him extensively over the lumbar region. I continued this treatment until the 27th Sept., when the man expressed himself so much relieved that I told him he might resume his work on the first of the month. I have since heard that he has had no return of the pain.

CASE II.

T. McD., a fine, healthy-looking, muscular man, æt. 27, applied to me on the 30th December last. His history was that while working in gravel diggings in Omega, he was suddenly attacked with severe pains in the small of his back, produced, he thinks, from being obliged to work in a cramped position; having tried various remedies without benefit, he was compelled to give up work and come to Grass Valley for treatment; he never had rheumatism or syphilis, and always enjoyed good health, up to the date of the present attack.

I fired him over the sacral region, and ordered him to report next day.

31st. Says he is much relieved since yesterday; repeat firing.

Jan. 2. Has no pain since last report, but thinks another application would do him no harm, accordingly, I again used the button.

9th. Quite well, and going to Washoe to work in quartz mining.

CASE III.

Mr. H. J., a stout-built, healthy looking man, of rather florid complexion, called at my office Feb. 12th, 1863, to know whether his arm was or was not dislocated. The history he gave was, that yesterday he was chopping wood, an employment to which he was unused, and on rising this morning discovered that he could not raise his arm more than three or four inches from his side, and then with great pain. I examined the shoulder carefully, but could discover no evidence whatever of luxation. I raised his arm to its full height, and found he could maintain it there, but had no power to raise it himself or draw it across the chest, neither could he rotate the arm outwards, or render the hand supine—to do so caused extreme pain. I now asked him to show me the painful spot when I rotated the arm; at once he put his fingers on the coracoid process of the scapula, and over the origin of the long head of the biceps. He says he received no fall or blow, or any injury to account for this pain, neither does he remember ever having had rheumatism. I assured him that there was no dislocation, and promised a removal of the pain, and restoration of the functions of the arm in a few days. I now fired him over the origin of the brachial muscles, forbid him fermented liquors, and enjoined rest.

Feb. 13. Can raise his arm much better and rotate it with less pain, repeat firing

17th. Improved in every respect; can raise and rotate the arm without pain, but feels the arm weak about the insertion of the deltoid muscle. I, therefore, fired him round the shoulder-joint, and half way down the arm.

20. Called to tell me he felt quite well "and don't want my iron any more."

CASE IV.

Mr. T. S., a strong, healthy miner, says he strained himself this winter lifting a heavy rock, and distinctly felt something snap in his chest. Of course he wanted his chest examined, as he was afraid of consumption, etc. On stripping and asking him to point out the sore place, he referred me to the pectoral muscles on the left side. I examined the chest, found it normal, and at once fired him over the part affected. Three days after I met him, when he told me that he had no pain since, and was going to work that night.

It will be perceived that in none of the above cases, except the first, did I prescribe any constitutional treatment; and in the first case, only from the conviction that the patient's health was below par. The other cases were all men in strong vigorous health, and, with the exception of the pain, felt well. Another reason which induced me to withhold constitutional treatment was to give the local means a fair trial, and if successful, all the credit it deserved. In Dr. Corrigan's hands, the metallic button has contributed to the relief of many a sufferer from the pangs of sciatica and other neuralgias, and his success in those cases warranted me in believing that like means might also be used with benefit in cases of myralgia. I have not been disappointed, and, if space did permit, I could detail many aditional cases where the utility of local firing was undoubted.

Grass Valley, July, 1863.

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

VI.—MEDICINE AMONG THE ROMANS.

WHILE the school of Alexandria was prospering, and its disciples were cultivating medicine, not only in Egypt but in Greece and the Grecian colonies of Asia Minor, the foundations of the future power and dominion of the great Roman empire were being rapidly and firmly established. But the civilization and learning of the elder nations had not yet taken root on Italian soil. Engrossed by war and conquest, the stern old Roman disdained intellectual cultivation. The sword and the plough were the instruments of his principal occupations. Literature, science and art were considered unworthy of a warrior, and abandoned to slaves and freedmen.*

Medicine, as a science, was, therefore, for a long period unknown to the Romans. Before luxury and vice, with their inevitable train of sufferings and infirmities, had been introduced among them, diseases were comparatively few and simple in character, and the means of relieving them, such as are used by all uncivilized nations. When an epidemic occurred, it was regarded as an evidence of Divine wrath, and less dependence was placed on the ability of man, than on mystical ceremonies and superstitious practices.

Voltaire, in his "Philosophic Dictionary," remarks on this subject that the Romans were then occupied only in killing, and took no measures for the preservation of life. "How then were the sick treated among them, when suffering from a putrid fever, a fistula in ano, a bubonocele, or a pneumonia?" He answers:—"they died!"

The Romans borrowed from the Greeks (not always with good judgment, it is true,) almost everything concerning the arts, sciences and even religion.†

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*"The ancient Romans," says Suetonius, (De Illustribus Grammaticis,) were altogether occupied with affairs appertaining to war, and had no time to give to, nor inclination to cultivate the liberal arts."

"According to the ancient organization of the Roman Republic, there were only two occupations among the people, that of the warrior and of the agriculturist. All other professions were abandoned to slaves or strangers." Dionysius Halicarnassus, lib. XI. p. 210. Sprengel, Hist. de la med. vol I. p. 189.

†Strabo and Cicero admit that even at a later period the Romans servilely copied from the Greeks almost everything appertaining to the arts and sciences. "They borrowed," says Strabo, (Lib. III. p 257) "all their knowledge from the Greeks without adding to it. Whatever was imperfect remained so, for they did not attempt to improve. All their technical expressions have a Greek origin." Cicero informs us that poetry was not cultivated among them until a late date, and up to the epoch in which he lived, they had despised philosophy.

The Helenic mythology was modified by them to suit their own superstitious notions, and in medicine they adopted only the most absurd practices. Imitating the example of the Egyptian Pastophores and of the ancient Asclepiades of Greece, their Augurs and Aruspices, whose office was to interpret the flight of birds or inspect the entrails of animals for the purpose of ascertaining future events, associated with their sacerdotal functions the practice of medicine.

In the earliest period of Roman history we find that the Etruscans had transmitted to them the art of curing diseases by magical incantations, as practiced in the Grecian temples of Epidaurus before the time of Hippocrates. Twelve young men of the noblest families were chosen annually and sent to Etruria to be initiated in the divinatory art and mysteries, and a college of augurs was founded by Numa Pompilius in which Æsculapius and Bacchus were worshipped with all the ceremonies and deceitful practices of the ancient Asclepiades. Every one knows the story of the metamorphosis of Æsculapius into a serpent, in which form he is represented as having been conveyed from Epidaurus to an Island in the Tiber by the Roman ambassador Ogulnius, who had been sent to consult him respecting an epidemy then raging in Rome. *

In cases of epidemics the sibylline books were consulted and temples were erected to Apollo and Æsculapius to pacify their anger. Four hundred and sixty one years before the Christian era, a temple was built in Rome in honor of Apollo, god of medicine, to obtain his protection against an epidemy which was depopulating the city. † The worship of this divinity was entrusted to the Vestals, who invoked him exclaiming: *Apollo Medice!* . . . *Apollo Pæan!*

The Grecian goddess Hygeia, under the name of ***Dea salus***, and the Egyptian divinities Serapis and Isis had, also, their altars and medical worshipers. The influence of the Pontine marshes in generating miasmata and causing pernicious fevers and epidemics was seriously felt by the ancient Romans and gave rise to particular superstitious rites. Temples were, therefore, erected to the goddesses ***Febris*** in Rome and ***Mephitis*** in Cremona. ‡

During the plague which caused the death of Camillus, Livy tells us that the nation, prostrated by grief, commanded theatrical representations, in order to pacify the gods; and a lectisternium, such as had been practiced on two former occasions, was also ordered. It consisted in decorating beds in the temples and placing in them the statues of the gods and goddesses; a magnificent feast was prepared in their honor, and the worshipers divided among themselves the sacred food. But notwithstanding all this, the fatal epidemic continuing its ravages, the wisest amongst the hoary heads proposed, as the best remedy, the renewal of an ancient custom;—that of driving a nail into a wall of the temple of Jupiter. The office devolved on the dictator Manlius Imperiosus. The sacred nail was driven, it is needless to say with what effect.

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*Plutarch. Quaest. Rom. Plinius, lib. xxix c. 8.

† Dionys. Halicarn. lib. IV. c. 25.

‡ Plin. lib. II. c. 7. Cicero, de nat. deor. III. 25. Sprengel, Op. cit. vol. 1, p. 181-186.

Juno and Diana under the surnames of *Lucina, Mena* and *Dea Natio, a nascendo*, presided over child-birth, "because," says Cicero (de nat. deor. 11. 27,) "the moon exerts a great influence on the puerperal state of women." Mena or Fluonia had the power of preventing and arresting hemorrhages during pregnancy. Deities of an inferior order,—*Prosa* and *Postverta*—were invoked according to the presentation forward or backward of the head of the fœtus. Ossipaga presided over the consolidation of the bones, and Carna over the development of the soft parts. Brutus, the first consul of the Republic, had a temple consecrated to the latter, in which it was customary to deposit as an offering, on account of its nutritive qualities, a mush made of beans and lard.*

The woman when in labor, was placed on the nuptial bed, and Diana was thrice loudly invoked:

> "Quæ laborantes utero puellas
> Ter vocata audis, adimisque letho."—HORACE.

According to Pliny, from her foundation up to the epoch when Asclepiades† flourished, a period embracing over six centuries, Rome had been destitute of practitioners educated in the science of medicine. The same author informs us, however, that during that interval and under the consulate of Lucius Æmilius and of Marcus Livius, 219 B. C., Archagathus, a Peloponesian physician, settled in Rome. The foreign practitioner was, at first, received with marked respect and cordiality; the right of free-citizenship was conferred upon him; he was provided with an office ‡ for his practice at public expense; and he was surnamed "Vulnerarius" or "Healer of wounds." But the good fortune of Archagathus was of short duration. He is represented as having caused a revulsion in public sentiment by his harsh and heroic practice, with the frequent use of the knife, fire and violent caustics. He who had been received as a friend and benefactor, was soon afterwards stigmatized as an executioner (carnifex). Unfortunately the aversion of the people, which he thus brought upon himself, extended to all foreign practitioners. §

The old Romans had always regarded the refined and learned Greeks with suspicion and dislike, and this circumstance served only to confirm their prejudices. In a letter to his son, Cato the censor, who lived some time after Archagathus, expresses himself as follows: "Concerning the Greeks, son Marcus, I will speak to you more at length on the befitting occasion. I will show you the results of my own experience at Athens, and that, while it is well to acquire a certain knowledge of their literature and sciences, it is not advisable to make a profound study of them. Would that I could see the end of that iniquitous and proud race! But be assured, as if an oracle had apprised you of it, that whenever that nation shall have communicated her literature to us, it will ruin and corrupt everything, and the more assuredly will this take place if her physicians are sent to us. They have conspired among themselves to murder all barbarians with their medicine, and they claim, moreover, a fee for treating their patients that these may trust themselves to them with confidence and become more surely their victims. They insolently call us barbarians, as they do other nations. Aye, they even go further by giving us the abominable appellation of 'Opici'.[*] Remember I forbid you to have anything to do with physicians. " [†]

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* Sprengel, Hist. de la med. vol. I. p. 187.

† A native of Prusa in Bithynia. He was not as might be inferred from his name, a descendant of the ancient Asclepiades.

‡ Tabernam. A surgery, the same as the "iatreion" of the Greeks.

§ Plinius, liber XXIX, C, 6.

Pliny observes:—"Are we to conclude from this letter that Cato condemned so useful a thing as medicine? Far from it, by Hercules! for he subjoins an account of the medical prescriptions, by the aid of which he had ensured to himself and to his wife a ripe old age. He asserts also that he has a book of recipes in his possession, by the aid of which he treats the maladies of his son, his servants, and his friends; a book from which we have extracted the various prescriptions according to the several maladies for which they are employed." [‡]

"The Romans," says Le Clerc, "were not absolutely without physicians at the commencement of the Republic, but it is probable that until the arrival of Archagathus, they only made use of natural or simple Empirical medicine, such as it is supposed was practiced in the early ages of mankind. This was the medicine approved of by Cato and respecting which he was the first writer among the Romans." [§]

The medical precepts and prescriptions of Cato are principally remarkable for their super-eminent absurdity. Thus he extolled the efficacy of cabbage in most diseases and pretended to cure certain fractures by the aid of particular secrets and charms. In his work on agriculture, we find the cabalistic words, the mere pronounciation of which sufficed for the performance of these wonders. We give them as written by him:

"Luxum si quod est, hac cautione sanum fiet. Harundinem prende tib viridem P. IV. aut V. longam. Mediam diffinde, et duo homines teneant ad coxendices. Incipe cantare in malo, S. F. motas vaeta daries dardaries asta; tutaries: dic una paries, usque dum coeant . . . Vel hoc modo: huat hanat huat ista pista sista, domiabo damnaustra et luxato. Vel hoc modo: huat haut haut ista sis tar sis ardanuabon dunnaustra." [||]

According to Sprengel the Romans considered as physicians mere adventurers, bath-keepers, slaves or freedmen, if they only understood how to bleed, extract a tooth or cut corns. [¶]

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[*] "The Opici or Osci were an ancient tribe of Italy settled in Campania, Latium and Samnium. From their uncivilized habits the name was long used as a reproachful epithet, equivalent to our words "bumpkin", "clod hopper", or chawbacon". The natural history of Pliny. Translated by Bostock & Riley, London 1856; vol. V. p. 375.

[†] Lib. xxiv, C. vii.

[‡] Plin. lib. xxix. c. 8.

[§] Op. cit. p. 384.

[||] De Re Rustica, c. 160.

[¶] Op. cit. vol. i. p. 191.

To this class belonged most probably the "physicians" alluded to by Dionysius Halicarnassus who states that during the plague which raged in Rome three hundred and one years after its foundation (234 years, before the arrival of Archagathus), *the physicians did not suffice* for the number of sick.

Whether the jealousy and antipathy of the Romans against the refined and learned Greeks prevented the qualified physicians of that nation from settling among them at an earlier date, or whether, as Pliny asserts, Grecian physicians were banished together with their countrymen, * it is certain that the art remained in the most degraded condition until the time of the Cæsars, when it was established on a more legitimate basis.

The superstitious notions engendered by ignorance and credulity, during the earlier ages of a people, are not easily eradicated, and their traces are often visible even after a nation has attained a high stage of civilization.

Over half a century after the Christian era, long after Asclepiades had introduced Grecian medicine among the Romans, after Themison, Thessalus, and even Celsus had demonstrated its superiority, strange as it may appear, some of the most illustrious men of that nation, men learned in other sciences, still entertained the superstitious ideas of their ancestors respecting our art, and the same prejudices against foreign physicians. Conspicuous among these was the celebrated naturalist Pliny, who perished in the ashes of Vesuvius, 79 years A. C. Alluding to Grecian physicians, he expresses himself thus: "The Roman people, in extending its empire, has lost sight of its ancient manners, and in that we have conquered, we are the conquered; for we now obey the natives of foreign lands, who by the agency of a single art (medicine) have out-generalled our generals—"*imperatoribus quoque imperaverunt.*" (lib xxiv. c. 1.)

In lib. xxix. c. 5, he remarks: "The medical art, so often modified and renewed as it has been, is still on the change from day to day, and still we are impelled onwards by the puffs which emanate from the ingenuity of the Greeks. It is quite evident too, that every one among them that finds himself skilled in the art of speech, may forthwith create himself the arbiter of our lives and death: as though forsooth, there were not thousands of nations who live without any physicians at all, not, for all that, without the aid of medicine."

Approving the act by which the Grecian physicians had been expelled from Rome, he says of those who had caused it to be promulgated: "And here I will improve upon the foresight displayed by them. Medicine is the only one of the arts of Greece, that, lucrative as it is, the Roman gravity has hitherto refused to cultivate. It is but very few of our fellow-citizens that have even attempted it, and so soon as ever they have done so, they have become deserters to the Greeks forthwith, etc. (lib.xxix. c. 8.)

Like his predecessor Cato, although Pliny condemned the regular practitioner, he not only advocated domestic medicine, but he left us extraordinary productions in that department. The books he devoted to this subject are full of gross absurdities and extravagant assertions.* We would, therefore, pass them over in silence, were it not that a chapter from them is necessary to show the nature of that "domestic medicine" so highly extolled by the great naturalist.

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* Hist. Nat. xxix. c. 8. "et cum Graecos Italia pellerent, diu post Catonem, excepisse medicos."

REMEDIES FOR FEMALE DISEASES.†—"Menstruation is promoted by using bull's gall, in unwashed wool, as a pessary. Olympias of Thebes adds hyssop and nitre. Ashes, too, of deer's horns are taken in drink for the same purpose, and for derangemants of the uterus they are applied topically, as also bull's gall, used as a pessary with opium, in the proportion of two oboli. It is a good plan, too, to use fumigations for the uterus, made with deer's hair burnt. Hinds, they say, when they find themselves pregnant, are in the habit of swallowing a small stone. This stone, when found in their excrements, or in the uterus—for it is to be found there as well—attached to the body as an amulet, is a preventative of abortion. There are also certain small stones, found in the heart and uterus of these animals, which are very useful for women during pregnancy and in travail. As to the kind of pumice-stone which is similarly found in the uterus of the cow, we have already mentioned it when treating of the formation of that animal."

"A wolf's fat, applied externally, acts emolliently upon the uterus, and the liver of a wolf is very soothing for pains in that organ. It is found advantageous for women, when near delivery, to eat wolf's flesh, or, if they are in travail, to have a person near them who has eaten it; so much so, indeed, that it will act as a countercharm even to any noxious spells which may have been laid upon them. In case, however, a person who has eaten wolf's flesh should happen to enter the room at the moment of parturition, dangerous effects will be sure to follow. The hare, too, is remarkably useful for the complaints of females: the lights of that animal, dried and taken in drink, are beneficial to the uterus; the liver, taken in water with Samian earth, acts as an emmenagogue; and the rennet brings away the after-birth, due care being taken by the patient not to bathe the day before. Applied in wool as a pessary, with saffron and leek-juice, this last acts as an expellent upon the dead fœtus. It is a general opinion that the uterus of the hare, taken with the food, promotes the conception of male offspring, and that a similar effect is produced by using the testes and rennet of that animal. It is thought, too, that a leveret, taken from the uterus of its dam, is a restorative of fruitfulness to women who are otherwise past child-bearing. But it is the blood of a hare's fœtus that the magicians recommend males to drink: while for young girls they prescribe nine pellets of hare's dung, to ensure a durable firmness of the breasts. For a similar purpose, also, they apply hare's rennet with honey; and to prevent hairs from growing again when once removed, they use a liniment of hare's blood."

" For inflations of the uterus, it is found a good plan to apply wild boars' dung or swine's dung topically with oil: but a still more effectual remedy is to dry the dung, and sprinkle it, powdered, in the patient's drink, even though she should be in a state of pregnacy or suffering the pains of child-birth. By administering sow's milk with honied wine, parturition is facilitated; and if taken by itself it will promote the secretion of the milk when deficient in nursing women. By rubbing the breasts of females with sow's blood, they are prevented from becoming too large. If pains are felt in the breast, they will be alleviated by drinking asses' milk; and the same milk, taken with honey, has considerable efficacy as an emmenagogue. Stale fat, too, from the same animal, heals ulcerations of the uterus; applied as a pessary, in wool, it acts emolliently upon indurations of that organ; and, applied fresh by itself, or in water when stale, it has all the virtues of a depilatory."

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* We refer, especially, to his system of "Animal Therapeutics."

† The Natural History of Pliny, translated by John Bostock, M. D., F. R. S. and H. T. Riley, Esq., B. A., London, 1856. vol. v. p. 360-364.

"An ass's milt, dried and applied in water to the breasts, promotes the secretion of milk; and used in the form of fumigation, it acts as a corrective upon the uterus. A fumigation made of burnt ass's hoofs, placed beneath a woman, accelerates parturition, so much so, indeed, as to expel the dead fœtus even: hence it is that it should only be employed in cases of miscarriage, it having a fatal effect upon the living fœtus. Asses' dung, applied fresh, has a wonderful effect, they say, in arresting discharges of blood in females: the same, too, with the ashes of this dung, which, used as a pessary, are very good for the uterus. If the skin is rubbed with the foam from a horse's mouth for forty days together, before the first hair has made its appearance, it will effectually prevent the growth thereof: a decoction, too, made from deer's antlers is productive of a similar effect, being all the better if they are used quite fresh. Mares' milk, used as an injection, is highly beneficial to the uterus."

"When the fœtus is felt to be dead in the uterus, the lichens or excrescences from a horse's legs, taken in fresh water, will act as an expellent: an effect produced also by a fumigation made with the hoofs or dry dung of that animal. Procidence of the uterus is arrested by using butter, in the form of an injection; and indurations of that organ are removed by similarly employing ox gall, with oil of roses, turpentine being applied externally in wool. They say, too, that a fumigation, made from ox dung, acts as a corrective upon procidence of the uterus, and facilitates parturition; and that conception is promoted by the use of cow's milk. It is a well-known fact that sterility is often entailed by suffering in child-birth, an evil which may be averted, Olympias of Thebes assures us, by rubbing the parts, before sexual intercourse, with bull's gall, serpent's fat, verdigrease, and honey. In cases, too, where menstruation is too abundant, the external parts should be sprinkled with a solution of calf's gall, the moment before the sexual congress; a method which acts emolliently also upon indurations of the abdomen. Applied to the navel as a liniment, it arrests excessive discharges, and is generally beneficial to the uterus. The proportions generally adopted are—one denarius of gall, one third of a denarius of opium, and as much oil of almonds as may appear to be requisite; the whole being applied in sheep's wool. The gall, too, of a bull-calf is beaten up with half the quantity of honey, and kept in readiness for the treatment of uterine diseases. If a woman about the time of conception eats roasted veal with the plant aristolochia, she will bring forth a male child, we are assured. Calf's marrow, boiled in wine and water with the suet, and applied as a pessary, is good for ulceration of the uterus; the same, too, with foxes' fat and cat's dung, the last being applied with resin and oil of roses."

"It is considered a remarkably good plan to subject the uterus to fumigations made with burnt goat's horns. The blood of the wild goat mixed with sea-palm, acts as a depilatory. The gall of the other kinds of goat, used as injection, acts emolliently upon callosities of the uterus, and ensures conception immediately after menstruation: it possesses also the virtues of a depilatory, the application being left for three days upon the flesh after the hair has been removed. The midwives assure us that she-goat's urine, taken in drink, and the dung, applied topically, will arrest uterine discharges, however much in excess. The membrane in which the kid is enclosed in the uterus, dried and taken in wine, acts as an expellent upon the after-birth. For affections of the uterus, it is thought a desirable plan to fumigate it with burnt kid's hair; and for discharges of blood, kid's renet is administered in drink, or seed of henbane is applied. According to Osthanes, if a woman's loins are rubbed with blood taken from the ticks upon a black wild bull, she will be inspired with an aversion to sexual intercourse: she will forget, too, her former love, by taking a he-goat's urine in drink, some nard being mixed with it to disguise the loathsome taste."

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INSANE POOR.—On the 1st of January, 1862, there was in England and Wales not including a few parishes making no returns concerning their poor 946,166 paupers chargable of the Poor-rates, and of this number 34,271 were insane—namely, 22,960 lunatics and 11, 311 idiots; in other words, 3-62 per cent. of the pauperism was ascribable to insanity, the lunatics being 2-43 per cent., and the idiots 1-19 per cent. 14,936 were males, 19, 335 females. 18,318 were in county or borough lunatic asylums, 1193 in registered hospitals or licenced houses, 8603 in union or parish workhouses, 985 in lodgings or boarded out, and 5172 resided with relatives.—*London Lancet.*

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INFLUENCE OF HYPERTROPHY OF THE HEART AND DISEASES OF THE CEREBRAL ARTERIES IN THE PRODUCTION OF APOPLEXY.—Dr. A. EULENBURG has investigated this subject statistically in a prize thesis presented to the Medical Faculty at Berlin. In 42 cases of sanguineous cerebral apoplexy, abnormal conditions of the arteries at the base of the brain — hardening, calcareous deposits, and fatty degeneration—were found in 29; in 13 cases only were the large cerebral arteries free from disease. In 9 of the 42 cases there was hypertrophy of the left ventricle. Of the 29 cases in which disease of the cerebral arteries was present, there was also more or less extensive endocarditis in 17, alterations of the valves of the heart in 19, and hypertrophy of the left ventricle in 6 only. Dr. Eulenburg hence draws the conclusion that disease of the cerebral arteries is a much more frequent cause of apoplexy than cardiac hypertrophy.—*Am. Jour. Medical Sciences.*

BIBLIOGRAPHICAL NOTICES.

CLINICAL LECTURES ON THE DISEASES OF WOMEN AND CHILDREN.—By Gunning S. Bedford, A. M., M. D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics in the University of New York; Author of "The Principles and Practice of Obstetrics." Eighth edition, carefully revised and enlarged. New York: William Wood & Co., 61 Walker street. 1863. pp. 667. For sale by A. Roman & Co., 417 and 419 Montgomery street, San Francisco.

This work of Professor Bedford is already familiar to our readers. From 1855, when "The Lectures on Diseases of Women and Children" were first issued from the press, up to the present time, they have become more and more popular; so that they have now reached the eighth edition, and have been translated into the French and German languages.

In the present edition, besides additions to the text, the author has added a lecture on Carcinoma of the Uterus.

We recommend such of our readers as have not a copy of this valuable work to purchase one immediately. No well-furnished library should be without it.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By Frank Hastings Hamilton, A. B., A. M., M. D., Lieut. Col.; Medical Inspector U. S. A.; Professor of Military Surgery and Hygiene, and of Fractures and Dislocations in Bellevue Hospital Medical College; one of the Surgeons to Bellevue Hospital, New York; Professor of Military Surgery, etc., in the Long Island College Hospital, Brooklyn; author of a Treatise on Military Surgery. Second edition, revised and improved. Illustrated with two hundred and eighty-five wood-cuts. Philadelphia; Blanchard & Lea. 1863. pp. 743. For sale by A. Roman & Co., 417 and 419 Montgomery street, San Francisco.

Before the publication of Dr. Hamilton's Treatise on Fractures and Dislocations there was not a single complete work on the subject in the English language. The honor of having admirably supplied this desideratum has been fairly won by our author. The first edition has received the unanimous approbation of the profession at home and abroad.

"Among the many good workers at Surgery, of whom America may now boast" (says the *Edinburgh Med. Journal*, Feb. 1861) "not the least is Frank Hastings Hamilton; and the volume before us is (we say it with a pang of wounded patriotism,) the best and handiest book on the subject in the English language. It is vain to attempt a review of it, nearly as vain to seek for any sins, either of commission or omission."

The present edition has received the careful revision of the author and is enriched with an additional chapter on "Gunshot Fractures."

A **Practical Handbook of Medical Chemistry.**—By John E. Bowman, F. C. S., formerly Professor of Practical Chemistry in King's College, London. Edited by Charles L. Bloxam, Professor of Practical Chemistry in King's College, London. Third American, from the fourth and revised London edition, with illustrations. Philadelphia: Blanchard & Lea. 1863. pp. 340. For sale by A. Roman & Co., 417 & 419 Montgomery street, San Francisco.

The medical student and practitioner have already appreciated properly this small manual, in which instructions for the examination and analysis of the urine, blood and other animal products, both healthy and morbid, are accurately given. The directions for the detection of poisons in organic mixtures and in the tissues are exceedingly well exposed in a concise and simple manner.

This fourth edition has been thoroughly revised by the editor, and brought up to the present state of practical medical chemistry.

List of Medical Works lately published in France and Great Britain.

De la production du froid; applications industrielles, appareils *Carre*, par F. d'Auriac. In—18 de 140 pages, avec figures. Paris, Victor Masson et fils 2 fr.

Des rétentions d'urine, on pathologie speciale des organes urinaires au point de vue de la retention, par le docteur Charles Horion: in 8. Paris, Adrien Delahaye. 6 fr.

Appreciation de la valeur des resections osseuses dans les maladies chicurgicales et de leurs indications. In 8, de 186 pages. Strausbourg, Silbermann.

Des cabinets ténébreax dans le traitement de l'héméralopie, par le docteur A. Netter. Brochure in 8 de 66 pages. Paris, Germer Bailliere, 2 fr.

Hygiene publique; résumé de dix aus de travaux du conseil de salubrité de la Seine, par Evariste Thevenin. In 18. Paris, Germer Bailliere. 2 fr. 50.

L'Animisme et ses adversaires, par M. J. Tissot, doyen de la faculté des lettres de Dijon. In 8 de 120 pages. Paris, Victor Masson et gla. 3 fr.

Traité du croup, on angine laryngèe diphthéritique, par les docteurs Fischer et Bricheteau. Ouvrage couronné par la societé des sciences de Lille. 2o edition, corrigeé et augmentée. In 8. Paris, Delahaye, 2 fr. 50. – *Gazette Hebdomodaire.*

We are indebted to the Canada *Lancet* for the following list:

Beale, Lionel John—The Stomach, medically and morally considered. Lectures delivered at the St. Martin's Library Reading Room. 12 mo., pp. 112, sewed: Harrison, 1s.

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Tilt, Edward John—A Handbook of Uterine Therapeutics; post 8vo. pp. 310, cloth Churchill, 6s.

Tweedie, A.—On the Pathology and Treatment of Continued Fevers. 8vo. pp. 312. Churchill. 12s.

Chambers, T. K.—Clinical Lectures on the Restorative System in Medicine. Post 8vo, pp. 430. Churchill, 6s. 6d.

Lawrence W.—Lectures on Surgery, St. Bartholemew's Hospital. 8vo. pp. 642, 16s.

Vol. 45, Medico-Chirurgical Transactions. 8vo. pp. 500. Longman, 16s.

Braithwaite W. & J.—Retrospect of Midwifery, 12mo. Simpkin. 2s. 6d.

Davy John—On some of the most important diseases of the Army. 8vo. Williams & N., 15s.

Lee, Henry—On Syphilic Inoculation. 2d edition, colored plates. 8vo. pp. 333. Churchill, 10s.

Mapother, E. D.—Physiology and its Aids to the Study and Treatment of Diseases. 12mo. pp. 490. Longman, 9s.

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CALOMEL AND TARTAR EMETIC STRICKEN FROM THE SUPPLY TABLE OF THE ARMY.—I. From the reports of Medical Inspectors and the Sanitary returns to this office, it appears that the administration of calomel has so frequently been pushed to excess by military surgeons as to call for prompt steps by this office to correct this abuse; an abuse, the melancholy effects of which, as officially reported, have exhibited themselves not only in innumerable cases of profuse salivation, but in the not unfrequent occurrence of mercurial gangrene.

It seeming impossible in any other manner to properly restrict the use of this powerful agent, it is directed that it be struck from the supply table, and that no further requisitions for this medicine be approved by Medical Directors. This is done with the more confidence, as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unfailingly administered.

II. The records of this office having conclusively proved that diseases prevalent in the army may be treated as efficiently without tartar emetic as therewith, and the fact of it remaining upon the supply table being a tacit invitation to its use, tartar emetic is also struck from the supply table of the army.

No doubt can exist that more harm has resulted from the misuse of both these agents, in the treatment of disease, than benefit from their proper administration. W. A. HAMMOND, Surgeon Gen'l.

Surgeon-General's Office, Washington, D. C.,
May 4th, 1863.

This order is a virtual acknowledgment on the part of the Surgeon General that, in his opinion, a large number of the medical officers in the army of the United States are disgracefully incompetent.

If calomel and tartar-emetic are substances too powerful and dangerous to be left on the supply-table of Army Surgeons, we cannot imagine why morphine, digitalis, strychnine, chloroform and a hundred other agents should still be retained to be used *at the discretion* of the same men against whom so extraordinary an order has been issued.

If, as Dr. Hammond asserts, no doubt can exist that more harm has resulted from the misuse of both of these agents, in the treatment of diseases than benefit from their proper administration; what guarantee has he that, deprived of these means, the same *heroic* practitioners will not misuse in the same manner other therapeutical agents?

It would have been wiser to have established at once a Court of Inquiry with power to dismiss from service those against whom such precautions are found necessary. As it is, in this order, the Surgeon General has exceeded his authority, officially and professionally.

* * *

HEALTH OF SAN FRANCISCO.—The total number of deaths for the month of June was 175, being two more than for the month of May: 117 deaths were recorded in the Lone Mountain Cemetery, of which 25 were under 3 years; 5 7 in the Roman Catholic burying ground, of which 29 were under 3 years; and one in the Jewish Cemetery.

The principal causes of deaths are recorded as follows: consumption, 16; lung diseases, 8; pneumonia, 1; brain diseases, 12; apoplexy, 3; heart diseases, 2; dropsy, 3; diarrhœa, 5; cholera infantum, 2; dysentery, 3; erysipelas, 2; diphtheria, 1; scarlatina, 1; whooping cough, 4; measles, 1; typh fevers, 6; still-born ,

READY-MADE PLASTERS.—Dr. Tilt drew attention to the fact that when a hundred or a hundred and fifty grains of common starch are boiled in an ounce of glycerine, the result is a very stiff glutionous compound, which has no smell, and does not become rancid; and although sticking firmly to the skin, it can be removed and reapplied. Instead of ordering belladonna plaster, Dr. Tilt prescribes three grains of sulphate of atropia to be rubbed down with a few drops of glycerine, then incorporated with an ounce of hard glycerine ointment, and thickly spread by the patient on gutta-percha cloth or impermeable wash cloth. This can be removed for the morning ablutions, and reapplied after spreading a little more ointment on the same plaster. Morphia and other alkoloids are prescribed in the same way. The samples exhibited by Dr. Tilt were made by M. Bullock, of Hanover-street.—*Lancet.*

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Gunshot Wounds by Modern Weapons.

A. Neill, Assistant-Surgeon 65th Regiment, has published (*Edinbuvgh Medical Journal*, 1863,) some very interesting observations on these injuries.

"Gunshot wounds," he says, "have been written about ever since gunpowder was discovered; and wounds caused by a leaden bullet are treated of by Celsus previously to the introduction of gunpowder, the characters of which were very similar to those of the present day, but of course not of so severe a character. Bones and arteries were seldom injured, and the wounds were generally contused and lacerated, owing to the small amount of impetus given to the ball. Deaths from these leaden bullets were not frequent, and the imaginary poisonous effects of the introduction of the lead into the tissues, seems to have occupied more of the attention of the surgeon in an endeavor to counteract its influence, than the more serious effects of the wound itself. Even so far back in the annals of medical and surgical history as the time of Celsus we read of the most approved plan of treatment to be followed in the case of wounds from leaden bullets, the correct mode of discovering them, with the after treatment of the wound, which in those days must have caused more misery and suffering than the infliction of the injury itself: and I have no hesitation in saying that a patient had a much greater chance of losing his life under the surgical treatment of his wounds than by any direct injury done to his body by the bullet itself. Of course, the first the surgeon did was to remove the foreign body, which was generally imbedded in the soft tissues; then he proceeded to enlarge the external wound, under the supposition that the poisonous effects of the lead would escape from the system with the loss of blood. Then numerous and varied hot poultices were applied—almost every surgeon having his own favorite form of it—in which lay some subtle virtue for the extraction of the poison from the wound. Plasters of different sorts, and various healing cataplasms were used. The wounds were encased in these filthy messes, and the process of suppuration speedily setting in, the pus not being allowed a vent, and the contact of clean water or fresh air being considered most prejudicial, can we be surprised at the deaths that resulted from these forms of treatment? The crowded state of the hospitals of those days, the want of attention to proper ventilation, the intolerable stench of the putrid discharge from their wounds, not removed more frequently than once a week at the oftenest, and the inevitable result of this, the formation of maggots in the wound, induced those forms of low fever by which we have lost so many fine soldiers, and which swept off the unfortunate creatures by scores.

Very little alteration in the treatment of gunshot wounds was made until the commencement of the Peninsular war, and even during the early part of it the same mode of treatment was pursued; but owing to the great losses of men from deaths in hospitals having occasioned some inquiry into the treatment of wounds in general, it was resolved to abandon the system previously in vogue, of invariably making the wound larger than it was, by incision, and instead of the hot poultices and dirty plasters, to adopt the more sensible plan of cooling applications. And as it was found that the patient's general health was injured by having his wounds always saturated in the pus discharged from them, instructions were given to endeavor to keep the parts as clean as possible, and to change the dressings "more frequently" than once a week. Since then great advances have been made in military surgery, and we now appreciate the absolute necessity of avoiding overcrowding in hospital wards. of paying great attention to proper ventilation, of keeping the wounds well washed in water, and never allowing any offensive smell to arise from the collection of pus, thus conducing to the patient's comfort and general heaith, which formerly was never studied. The consequence of this mode of treatment is, that we now have cases of men recovering from wounds almost always looked on formerly as fatal. We seldom or never hear of hospital gangrene, or any of those diseases created in the wards of an hospital where a number of cases of wounds discharging pus are under surgical treatment.

In the present day our missiles of offence and defence consist of the rifle and bayonet, smooth-bore gun, pistol, cannon of various calibre and formation, calculated to throw either round shot, or cylindrical shot, or shell percussion, as in the Armstrong gun, or with a fusee, as the old gun. Then we have the mortar and cohorn, for a vertical fire, to use an artillerist's expression, calculated to throw shell. Then for the smooth-bore cannon there is the solid shot, the grape shot, and the cànister shot, which in their names express their forms of composition. Bar shot are two large shot welded together, with an iron bar between; and chain shot, with a chain between two large shot, which are calculated to mow down like a scythe, making fearful wounds. The two latter are used chiefly against bodies of horse, and on shipboard. The shrapnel shell is a hollow sphere of iron, partly filled with pewter or iron balls of small size. The common shell is an iron sphere filled wholly with powder. The musket ball is round and solid, of lead. The rifle bullet is an elongated, expanding, cylindrical, conoidal projectile, as the musketry instructors tell us, weighing about one ounce, and calculated to travel an immense distance, and at a very great rate. The wounds caused by cannon shot and shell are fearful, and those by the rifle bullet, though not so severe to look at, are often most dangerous. It is a difficult thing to judge which form of weapon is the most destructive of life. Against masses of troops the cannon is no doubt very efficacious: but then, at certain ranges, the rifle is equally so. The characters of the wounds inflicted by these various missiles are equally varied. Shot and shell tear away large portions of the body: and I have seen legs and arms stripped off, one half of the chest quite cut away, and the body cut in halves by cannon balls. Shell generally, by exploding in fragments, either impact themselves in the tissues, making wounds frightful to look at in extent, or merely cut away portions of the body. The wound of the rifle bullet is, of course, very small, and apparently very innocuous compared with the large shot wounds, but they are just as efficacious in the destruction of life. To give an illustration of the force with which a cannon ball must travel, I may mention that I saw a case where a man had all the ribs, both clavicles, and arm fractured by attempting to catch and stop a round shot, which was apparently spent, and was rolling along the ground in an innocent manner. He caught at it, and was thrown down, struck on the chest, and the shot rolled over, leaving him in articulo mortis, In this case a portion of fractured rib had passed through the pericardium, and wounded the substance of the heart. What are called spent rifle balls are capable of inflicting much and severe injury, and always make an extensive bruise. To show the effects of being hit with a spent ball, or one that has lost its greatest impetus, I may mention a case that came under my notice, where a colonial volunteer was standing talking in a group of his comrades during an action, and was struck by a ball in the abdomen, over the region of the bladder. The ball fell on the ground at his feet, without either injuring his clothes or marking the skin. He did not feel much pain at the time and walked to the hospital, a distance of two miles, with the ball in his pocket, without feeling much pain, but he died shortly afterwards from peritonitis and excessive inflammation of the bladder. The entire surface of the abdomen presented the appearance of a severe bruise in a few hours after being struck. I could mention several other cases more or less bearing on this point, but they only help to prove the fact, that a spent ball can kill without wounding the integument, and how small an amount of injury will often take away life; but, on the other hand, it is wonderful how great an amount of injury the human system can endure without succumbing under it. Both legs may be shot away, with great loss of blood, and amputation be necessary afterwards; yet, with such mutilations, death is not always the result.

One of the first peculiarities of gunshot wounds to be mentioned is, the shock to the system, which is generally present in a greater or less degree; but it is not always the case that in very severe and dangerous wounds the amount of shock is very great. I have seen some instances of comparatively trifling wonnds where the extreme prostration of the vital powers seemed to indicate much injury, but on examination discovered no dangerous wound, or even great loss of blood. The shock does not always bear a marked relation to the severity of the injury; it seems to depend greatly on the constitution of the patient. To his mental powers and his physical conformation may be ascribed many of the anomalies we observe in the nervous system. Ballingall has noticed this in his excellent work on Military Surgery, and ascribes it to the same causes. However, it is an undoubted fact that when a person feels himself wounded, let his self-possession and his coolness be what it will, he cannot help feeling an irresistible tremor and nervous agitation, even though it lasts only for a few moments. In some persons the power over the feelings is brought under the domination of the will, and consequently such people speedily regain their self-possession, and will submit to any operation, or endure any amount of pain, without changing even the expression of their countenances. To the suddenness of the injury, and the uncertainty of the amount of danger to life which is sustained on the instant, and when the mind has been engaged in some other manner, and perhaps in a high state of excitement at the time, may be ascribed this peculiarity; and in which instant the reason can see nothing but extreme danger. The amount of the shock to the system is to be observed and studied, and is of immense importance in determining as to the performance of any operation at the time of the injury, or deferring it until some other period when the nervous system shall have recovered its power, and the mind its equilibrium.

It is a matter of serious import to us when we have a patient on the field who has received a wound which we know requires the performance of some capital operation, such as the removal of a limb (and who is at the time in a state of complete shock, which of itself is sufficient to destroy life,) to determine what to do in such a case. The nature of the injury, its situation and extent, must be the first inquiry, and a hasty opinion formed in the mind as to its probable result, so as to determine the question of immediate operation to save life, which may be ebbing fast from loss of blood or shock. It may be advisable, if possible, to defer any capital operation till the patient be removed to a more suitable operating theatre than the open field; and it requires no small amount of nerve and decision of character to enable the surgeon to contemplate calmly the necessary steps to be taken when in action.

Gunshot wounds of every variety are classed in the Army Medical Reports under the heading of Vulnus sclopitorum, though they might with more propriety be subdivided into simple and compound. The mere flesh wound, caused by the passage of a ball through the soft parts without involving injury to bone, artery, or nerve, being one subdivision; and the more complicated injury, where fractures of bone and other dangerous lesion has occurred. Gunshot wounds are sometimes classed as mortal, dangerous, severe and slight—each of which bears its explanation in its name. The characters of a gunshot wound are those of a contusion and laceration of all the tissues. Sometimes they are so simple as to bear resemblance to a punctured wound, particularly if a rifle ball, revolving on its long axis, has passed through the soft part at a great speed; but within a few hours it resembles a contusion. The wound of entrance, as it is termed, bears no comparison in either size or shape to that of exit when a rifle ball has caused the injury. In the former you see the edges of the wound curving inwards, and its circumference small, with little or no hemorrhage. In the latter the wound is large, and torn and irregular edges projecting outwards, and perhaps only slight oozing of blood. In a short time, averaging an hour, around the entrance wound slight redness begins, gradually extending to about two inches around its orifice. Again this color changes to blue or greenish black; and you see all the appearances of a severe bruise, with a small wound of the skin, its edges still curved inwards. In the exit wound the discoloration of the skin is not apparent. Inflammation quickly sets in throughout the whole course of the wound, and suppuration more or less profuse follows, with sloughing of the injured tissues. During this stage secondary hemorrhage is to be looked for, if in the course of the missile an artery has been injured or approached too closely; but loss of blood from a wound of this description is not frequent. Pain is great in the injured part, and much increased by motion of the limb; cicatrization throughout the whole course of the wound sets in, and in this manner heals. By care, and with every circumstance favorable to recovering, a patient may soon be going about once more, and have no ill effects from a wound such as I have described. Great loss of substance in the tissues is also well marked, induced by the suppuration of a slough more or less extensive.

The treatment to be pursued in such a case as I have just described is very simple; the wound must be examined and sponged, any foreign body, such as shreds of clothing, &c., removed, and in suitable localities uniform pressure may be applied; in a simple wound union by the first intention may be induced by closing the orifices and applying slight pressure by bandage, with attention to the portion of the limb by giving it complete rest. In one case I saw this result well marked, where the ball passed through the muscular part of the upper arm in its anterior aspect. The wounds were immediately closed from contact from air by isinglass plaster, and a bandage applied. The arm was supported in a flexed position, and cold water abundantly used to keep down inflammation. The orifices of the wound were quite healed, and the arm in use ten days afterwards. In a similar case, where a different plan of treatment was followed, suppuration set in, and the arm was useless for three months. With water, either cold or tepid, I have seen many almost miraculous cures effected. I consider that in cases where the vitality of the soft parts has been partially destroyed by bruise, tepid water and lint are very necessary as assisting to bring back the vitality, after which cold water may be applied with much benefit. In cases of compound fracture of the long bones with gunshot wound, after the limb has been put up splints and bandages, cold water will prove the best application, kept constantly dripping over the wound, which must not be closed over by either splint or bandage, but so arranged as to be quite exposed to the water. In seven cases of this description, four were gunshot wounds with fracture of the humerus, in three of which the ball passed out, and in one the ball was lying in the bone and was at once extracted. In these three the arm was put up in the usual manner as for fracture, but leaving the external wonnds exposed. The patients were kept in bed with the arm flexed, and so arranged that a constant stream of water was kept trickling over it, carrying off the pus discharged. A pail was made and raised over the bed, with a tube so placed as to carry a small stream from it to the limb, and regulated so as to change the temperature of the water occasionally if needful; one case was fracture of the tibia in its lower third, and one fracture of both bones of the forearm, with two external wounds. In the former case the man was aged 24 years, and three months after recovering was killed accidentally. On dissection of the leg I found that the fracture had extended down to the joint of the ankle, and both pieces of bone were joined perfectly—the mark of union was most distinct. In all these the plan of treatment by cold water was adopted with successful results.

In fifty cases of gunshot wounds, including all descriptions, treated thus by local applications, a successful issue was obtained. Gunshot wounds of the head and face generally terminate fatally, but if no very serious lesion of of the brain occurs, much may be done to save life in the treatment. I have noted one case where a man was shot in the head; the ball entered the left eye, and passed into the brain from below upwards; the patient was aged 21 years, of good general health, and of abstemious habits. He was found apparently in articulo mortis; great hemorrhage had taken place, his face and hair being covered with blood. I washed away the blood, and gave him weak brandy and water in small quantities. He was unconscious, and his pulse was scarcely perceptible. After getting the stimulant, his pulse gradually got stronger, and he seemed more conscious, though not able to speak. In four hours I looked again at the wound; blood was oozing from it, and a substance resembling that of the brain itself. His pulse was now small and rapid, and he was quite unconscious and unable to swallow. He had croton oil dropped on his tongue his head was shaved; cold water was kept trickling over; the stimulant was stopped. The eye was quite destroyed and was removed on the second day; after which time he seemed to improve, but still remained unconscious. Soup was administered by the stomach-pump every day. The only topical application was lint and cold water. It is useless to follow out this case. The patient gradually recovered; the bullet being somewhere in the brain, having no doubt become encysted. The only remarkable thing that occurred in this case was, that paralysis of the right side of the body occurred, the opposite to that on which the ball entered. His general health is good, and he has never had convulsions or epilepsy.

Gunshot wounds of the cavities of the body are always dangerous, but not always fatal. In one case of a soldier the ball passed through the right side of the chest, fracturing one rib, and passing through the lung out at the back near the spinal column. The same man was shot in the left breast, the ball not passing out. This was a serious case. There was great cough, with expectoration of blood in large quantities; bloody froth bubbled out from both wounds; there was also much difficulty in breathing. The right side of the chest was fixed with broad strips of plaster, passing round from over the spinous processes of the vertebræ to the front part of the chest, leaving the wounds exposed; this side of the chest was thus prevented from moving and gave the lung rest. The opposite side was merely covered with bandages. The patient was supported in a sitting posture. Cold water and lint were applied to the wound. He had muriate of morphia at night to give sleep, and his strength was kept up by nourishing soups. Purgatives were administered when required, and small doses of antimony, in the form of James's powder, were also given along with an expectorant mixture to allay cough. Three weeks after being wounded, and when going on well, he had a violent attack of congestion of the left lung, which was relieved by cupping. This man is now tolerably well, and is invalided from the service. In another case, where the left lung was wounded by the stab of a bayonet, and where the same plan of fixing the chest by plaster along with cold water applications was adopted, complete recovery followed.

Much attention must necessarily be given to position in the treatment of gunshot wounds. The head must be kept raised in wounds of the thorax, so as to relieve the breathing. Fixing the chest by means of the adhesive plaster gives great relief to breathing, and, as I know by experience, changes the condition from torture and extreme agony to comparative comfort.

In the limbs, wounds of the arteries and large nerves always require amputation; but when the artery alone is wounded, the only operation necessary is to cut down on and tie it. The treatment, of course, being—proper position of limb, complete rest, and cooling applications, such as water dressing.

When a ball passes through the carpus or tarsus, even though much smashing of the bone take place, without lesion or artery, the member may be saved. In five instances of such wounds, three in the carpus and two in the tarsus, both hands and feet were saved by adopting the antiplogistic plan of treatment with water dressing; and the removal of dead bone when it is loosened and acting as a foreign body. Occasional poultices are useful in cases of this sort so as to favour suppuration, being careful to keep them clean and frequently changed. The use of poultices in gunshot wounds is generally to be avoided. They are superceded in their effects by lint and warm water kept constantly trickling over the wound, and only induce putrefaction of the purulent discharge.

When bleeding takes place from a small artery, it may be stopped by the pressure of a bandage, which always becomes necessary when there is œdema of the part. In much smashing of the small bones, bandage and splint will, in a measure, maintain the shape of the foot or hand, which would otherwise become distorted. I have been induced to adopt as my treatment the topical applications of cold water, solely on observations among the aboriginal natives New Zealand, where from time immemorial they always carry their wounded to the edge of some stream, so that a constant supply of water may be at hand; and in the case of fractured bones, after putting them up, the pour water constantly over the injured part, and many have been the cures that have been thus effected.

Much depends on fresh air as well as fresh water; however, the former is not always supplied in our hospitals, but the latter not so liberally as it should be in surgical cases.

Many and various have been the instruments constructed for extracting bullets. All sorts of forceps and with as many improvements and varieties as weeks in the year nearly; but I am sure all will concur with me, that with the common bullet-forceps any bullet may be extracted, and the only instruments needful for the field are tourniquets, with pad-strap and buckle, scalpel and forceps, with curved needle and silk thread, lint, adhesive plaster, and bandages. By the plan of treatment I have advocated I do not doubt that I have witnessed cures effected where death would have resulted under any other. The plentiful and constant applications of cold water to wounds (either gunshot or by the surgeon's knife) will heal them in a much shorter time and with less discomfort to the patient than any other treatment. Every surgeon has his own favorite plan of treatment, but none will ever supersede the cold water

It is said that the Minie conical ball makes a more severe wound than the round, but not if it revolves in its long axis, as it then pierces the tissues, not tearing them; the least obstruction to its course will, however, alter its motion; and if it then revolves on its short axis, of course, by its greater length, will create a larger wound than the spherical ball.

Erysipelas is a frequent result of gunshot wound, and generally of a severe character, causing much sloughing in and around the soft parts, difficult to subdue and always to be dreaded when in a severe form. It often supervenes in cases where the shock has been great, and where a large amount of stimulants have been administered. In such cases, where it might be feared that erysipelas would set in, I have given potassio-tartrate of antimony in small doses, as soon as the shock subsided and reaction set in, thus anticipating the attack, if I may so say, and in no case in which it was administered have I seen erysipelas; but when it does show itself, the usual means of treatment must be adopted, and changing the form of local applications from cold water to warm. I have never seen a case of gunshot wonnd in which erysipelas set in, where the shock of the system had not previously been severe, though in two instances the wounds were slight. After amputation, acute bronchitis is to be feared, causing much danger to the patient. In seven cases of secondary and four of primary amputation, I saw acute bronchitis attack the patients, generally commencing about the fifth day after operation, for which no reason could be assigned. The season of the year was in summer with fine weather, and the patients had every care taken of them previously. An attack of acute bronchitis supervening on an amputation or severe gunshot wound is of an aggravated type, and seems less amenable to ordinary treatment than the usual bronchitic affections, and as the purulent discharge from the wound is considerably diminished in quantity, when the first symptoms of the affection show themselves, and is through the whole course of the disease abnormally small in quantity, so, on return of the pus in increased quantity, the bronchitis gradually disappears, and the wound assumes a more healthy aspect. This occurrence of bronchitis after amputation has been frequently remarked by authors, but I do not know of any cause for it being assigned by them, or any notice taken of the almost total disappearance of the purulent discharge during the attack. The ordinary remedies have been given for the treatment of it; but till the reappearance of the pus, little benefit seemed to be derived from the usual plan of treatment. Pyæmia is a frequent result of gunshot wounds, but it may often be avoided if proper precautions be taken. Tetanus is more frequently seen now than pyæmia; and for its cure most of the articles in the materia medica have at some time or other been proposed, but none seems of so much use as the continued use of opiates and chloroform.

In the course of treatment in gunshot wounds, diarrhœa and dysentery are very frequently most annoying to the patient, and reduce the strength very rapidly. In these cases I have found nothing so speedily benificial as powdered charcoal in one-ounce doses, five or six times a day, and it has invariably checked the diarrhœa. Through the whole course of treatment, I have found that the tincture of the muriate of iron in small doses, twice a day, has been of much service, and has changed the appearance of the wound in a few days after amputation, when of an unhealty aspect, to a fine healthy look, where the consistence of pus changed materially. I have given it in thirteen cases of gunshot wounds, from the seventh day for a period of about a month or six weeks, with the most satisfactory results. Of styptics in gunshot wounds the best is tincture of matico poured on lint and passed into the wound, when it has acted as a charm in allaying hemorrage, and should always be in the pocket of the surgeon when in the field; but styptics are generally to be avoided, as they seem to induce attacks of erysipelas, or at least favor its production.—*American Jour. Med. Sciences.*

Epilepsy Treated with Iodide of Lead.

BY W. W. ELY, M. D., OF ROCHESTER, N. Y.

PRACTICALLY considered, epilepsy presents two classes of cases—the curable and the incurable. Inveterate habit and certain pathological changes must ever render many cases of this formidable disease unmanageable The curable class has been treated with some success by regimen, and by certain minerals and vegetable narcotics, without, however, establishing the reputation of any particular method or agent as decidedly anti-epileptic. The preparations of lead have not as yet had an extensive trial in this disease; yet, from the peculiar and decided influence of this mineral on the nervous system, it is not unreasonable to suppose that it might prove of benefit. The only notice I have seen relating to the use of lead in epilepsy, is a statement by the late Prof. William Tully (*Mat. Med. and Therap.*, vol. i, p. 735), that he had known several cases of epilepsy successfully treated by the uniprotacetate of lead. He also suggests, from theoretical considerations, that the protocarbonate might prove more speedy and effectual, and adds that he has never verified this belief by actual trial.

The prompt and beneficial influence of the iodide of lead in two cases in which I have recently employed it, has led me to hope that it will be found on further trial worthy of the confidence of the profession in the treatment of this formidable disease. I may add, that the remedy in question was selected as a matter of convenience, and without reference to the supposed effect of the iodide. Yet, I am satisfied that it is an eligible way of administering lead for its specific effects; and if any importance is attached to the *humoral* notions somewhat prevalent in regard to epilepsy, no objection, at least, can be urged against these two articles in combination.

G. B., a twin boy, born Oct., 1854, had a severe convulsion in July, 1861, another in December, and a third on May 2, 1862. From the latter date the attacks were manifestly epileptic, occurring generally at night, and every day, averaging five or six daily, until the following December. He was treated with a variety of remedies in addition to regimen, viz., mercurial cathartics and vermifuges, oxide of zinc, belladonna, quinia, iodide of potassium, a seton in the neck, etc. A paralysis of one side of the face suggested the probability of cerebral disease. After nearly all hope of benefitting him had been abandoned, and he had become almost a lunatic, I prescribed, Nov. 27, 1862, five grains of acetate of lead, three times a day, in an emulsion of castor oil. After a short time the medicine was discontinued on account of the obstinate constipation it induced. I then gave him the iodide of lead, two grains three times a day, and continued it until it caused severe enteralgia. After the occurrence of this symptom, in the latter part of December. his fits ceased, and have not returned. His mind is restored, and his general health is now good.

A son of M. D. W., aged 15, began to have convulsions at about three years of age. Up to his fifth year they were infrequent, and attributable to some exciting cause. From the seventh to the twelfth year they were more common, but consisted of slight spasms only. For the last three years they have been strongly epileptic every three or four weeks, numbering ten to thirty at each period. In addition to dieting and palliative remedies, he took the oxide of zinc, thirty grains daily, for about three months, without the least apparent benefit. He then used twelve bottles of Pierlot's valerianate of ammonia, which proved only a palliative. For three or four months he took the ammoniuret of copper, with a similar result. In March last he commenced the use of the iodide of lead, five grains daily. About two weeks afterwards he had one fit and two slight spasms. The remedy was continued, increasing it to nine grains daily, until it produced severe enteralgia, when it was omitted. He has now passed over the usual periods without any attack of the disease, and appears to be improved in every respect, the effect of the medicine has been to moderate his appetite, which was formerly difficult to control. It has also reduced his weight from 138 pounds to 124 pounds.

If any one should be induced, from this limited experience with lead, to make trial of it in epilepsy, I would suggest that the remedy be given until its specific effect on the bowels is obtained, and that the enteralgia be treated palliatively, *without opiates*, or be allowed to take its own course. The proper regimen should be enjoined on the patient. A stimulating diet, over-exertion, and mental excitements, prove prejudicial in many if not all cases of epilepsy.—*Am. Med. Times.*

On the Use of Medicated Pessaries in the Treatment o Uterine Diseases.

BY THOMAS HAWKS TANNER, M. D.
Assistant-Physician for the Diseases of Women and Children to King's College Hospital, etc.

THE great value of a variety of local applications in the treatment of uterine disease seems to be insufficiently appreciated by the profession at large. This is somewhat strange, considering the time which has elapsed since Dr. Simpson specially directed attention to their exceeding utility. Yet it is certain that a large number of practitioners know of no agents which may be directly applied to the uterus and vagina save the various kind of caustics and injections. The latter are certainly of great benefit in many cases; but it must be allowed that, even when properly used, they are often of only temporary service, since they cannot be kept in contact with the diseased part for more than a few minutes.

The chief reason, I believe, for the non-employment of medicated pessaries has been the difficulty of so making them that they can be efficiently applied by the patient herself. When formed of certain drugs mixed into a mass with lard and wax, they are either so soft that the sufferer cannot introduce them into the vagina; or, on the contrary, they are so hard that they fail to dissolve, and are expelled in just the same condition as that in which they were introduced. Although I have now employed these agents very freely for some years, I have found a very few druggists who would take the trouble so to make them that they were of any service. The difficulties just alluded to have, however, been overcome since Mr. White Cooper directed attention ('Lancet,' 28th June, 1862) to the utility of the butter obtained from the *Theobroma Cacao* nut, from which chocolate is made, as the basis for opthalmic ointments. This material possesses many valuable qualities, the chief being these;—It has an agreeable smell, and does not soil the fingers when handled; it does not become rancid; while, more particularly, though very firm, it has the property of becoming fluid at a low temperature. It is sometimes a little too stiff, but this fault is readily obviated by combining with it a little olive oil or glycerine. Pessaries made with cacao butter, though they have the consistence of wax while cold, are dissolved in the course of a few minutes when introduced into the vagina.

If ophthalmic surgeons are much indebted to Mr. White Cooper for directing attention to the uses of this butter, obstetric physicians are under no less an obligation. For although it had been used in America for making ointments for sometime before this gentleman wrote of its merits, yet no physician in this country were acquainted with its value, as far as I can learn from many inquiries.

The following formulæ for medicated pessaries are given as examples of the way in which I generally prescribe these remedies. It is only necessary to premise that rather large doses of the different drugs are necessary, inasmuch as absorption through the walls of the vagina is slow and uncertain:

1. *Iodide of Lead and Belladonna Pessaries.*—℞. Plumbi Iodidi, ℈ij; Extracti Belladonnæ, ℈j; Butyri Cacao, ʒ iv; Olei Olivœ, ℥j. Misce. Divide into four pessaries, and order one to be introduced into the vigina every night or every other night.

2. *Mercurial Pessaries.*—℞. Unguenti Hydrargyri, ℈iv—ʒij; Butyri Cacao, ʒiv; Olei Olivæ, ℥j. Misce. Where there is tenderness of the cervex uteri, one scruple of extract of belladonna or two scruples of extract of conium should be added to the mass. Divide into four pessaries.

3. *Lead and Opium Pessaries.*—℞. Plumbi Acetatis, ℈j; Extracti Opii, gr. xij; Butyri Cacao, ʒ j. Misce. Divide into four pessaries. Order one to be used every other night.

4. *Zinc and Belladonna Pessaries.*—.℞. Zinci Oxydi, ℥j; Extracti Belladonnæ, gr. xij—℈i; Butyri Cacao, ʒ iv; Olei Olivæ, ℥j. Misce. Divide into four pessaries. One to be used every night.

5. *Iodide of Potassium and Conium Pessaries.*—℞. Pottassi Iodidi, ℥j; Extracti Conii, ℈iv; Butyri Cacao ʒ iv; Glycerini puri, ℥j. Misce. Divide into four pessaries, and direct one to be used every night.

6. *Tannin and Catechu Pessaries.*—℞. Tanninæ, ℈ij; Pulveris Catechu, ℥j; Butyri Cacao, ʒiv; Olei Olivæ, ℥j. Misce. Divide into four pessaries, and order one to be used every other night.—*Trans. Obstetrical Society of London.*

THE ACTION OF EXPECTORATION.—In a paper on this subject, read at a recent meeting of the Glasgow Medical and Chirurgical Society by Dr. W. T. Gairdner, he advanced the theory that the bronchial tubes acted in a manner similar to that of the bowels, and ejected their contents by a peristaltic motion, which could as certainly be increased by appropriate medicines as could that of the bowels.—*Med. Reporter.*

MORTALITY IN LONDON IN 1862.—The deaths in London in 1862 from all causes were 66,950, of which 34,133 were males, and 32,817 females. The greatest number occurred in the forty-eighth week, ending 29th of November, when they rose to 1745. In that week the mean temperature of the air fell to 37.18. The least number occurred in the twenty-eighth week, and was 1075, when the mean temperature rose to 58.28.—*Ibid.*

Notes on the Pathology of Tertiary Syphilis. By Dr. Diday, Lyons.—Tertiary syphilis should not be considered as one of the periods—as one of the stages of evolution of a disease. It is a distinct pathological stage, which, by its clinical characters, its prognosis, and its treatment, may be sufficiently differentiated from the morbid condition, with which there would be the greatest probability of confounding it—secondary syphilis. Thus, secondary syphilis can be produced at pleasure upon any individual (supposing he have not attained immunity by a previous attack of the disease); its radical cure is the ordinary termination; finally, its lesions are contagious. With tertiary syphilis it is different; it is impossible to produce it at pleasure, or even to foresee the cases in which it will occur; in general it continues and perpetuates itself in spite of every remedy; finally, its lesions are not contagious. If we compare the two groups, the characters of which I have enumerated, it will be seen that the characters of secondary syphilis belong to the class of virulent affections, or innoculations by morbid secretions (such as vaccinia and the eruptive fevers), while those of tertiary syphilis belong to the class of diathesis (such as some skin diseases and rheumatism). Tertiary syphilis, in fact, is only syphilis which, from the condition of an intoxication, has become a diatheses—which, from being essentially transitory, has become permanent. But as this transformation is very far from taking place in all syphilitic patients, the pathologist ought to inquire under what circumstances it takes place. Is it due to an excessive duration of the secondary period? By no means; syphilis sometimes pre-exists for three or four years under the form of simple secondary lesions, without on that account necessarily passing into the tertiary form. Is it due to the absence of specific treatment? Not at all. Independent observation has shown that tertiary syphilis occurs as often on omission as after the employment of specifics during the secondary stage. The true cause of the occurrence of tertiary syphilis—the cause which entails it upon three out of twenty affected with secondary disease—is undoubtedly the variable strength of the original virus, but especially the variable degree of resistance which the organism of different patients opposes to the action of the virus. Individuals originally endowed with little vital resistance, or in whom this power of resistance has been enfeebled, whether by age or dyscrasiæ—whether by privation of pure air, of proper food, of sleep—whether by the effects of errors of regimen or the depressing passions—these are the persons in whom we most often see syphilis assume the permanent form, and take on the characters of a diathesis. Experience, in verification of these rational conclusions, confirms, by the failure of medicine, what I have said regarding the special obstinacy of this condition. Mercury, in spite of its title of specific, fails almost invariably. Iodine, an admirable palliative, is no more than a palliative. To cure, if it be possible, a diathesis, requires not less than the prolonged action of all reconstituent influences; requires not less than a radical and durable change of alimentation, of residence, sometimes of profession; in short, of all the habitudes, whether social or moral. In such a change alone can we look for the secret of getting rid of the disease. This is what few patients can be brought to understand, and what fewer still can be induced to put in execution: all which is an additional cause of the rarity of radical cures of tertiary syphilis.—*Edinburg Med. Journal* from *Gazette Medical de Lyon.—Boston Med. & Surg. Journal.*

Poisonous Ballet Dresses.—It is stated that the first representation of a new piece has just been given at Hamburg, in which the dancers all appeared in green costumes to represent water-nymphs. The stuff of which these costumes were made contained such a quantity of arsenic that the needlewomen who made the dresses fell ill, and the dancers were attacked with violent symptoms of poisoning whilst on the stage.—*London Lancet.*

Chancres.

BY W. E. BOWMAN, M. D.

Treatment of Soft Chancre.—Assuming that the reader is cognizant of the facts so briefly stated in the last two numbers of the *Lancet*, I need not dwell on the importance of a proper diagnosis of the different forms of chancre, before commenting on the treatment of them, which differs so widely.

Although mercury, taken internally, ends cicatrization of hard chancre, it has no beneficial influence upon the chanceroid, which remains stationary or even progresses after salivation.

The virus, resting in the sore itself and its underlying tissues, is only effectually destroyed by thorough cauterization.

Pernitrate of mercury.—Having been, invariably, successful with this form of caustic for the arrest of soft chancres, in my own practice, I place it "par excellence," first on the list. I prepare it by adding an ounce of red precipitate to an ounce and a-quarter of nitric acid, in which it readily dissolves by shaking. It is very painful when thoroughly applied, causing much inflammation; and, when the chancre is large, the effusion of serum into the cellular tissue of the prepuce. It has seldom to be employed but once, however, even in aggravated cases; nor have I ever noticed any injurious effect, hitherto, from its employment. Linseed poultices should be kept to the part until the inflammation subsides, and, afterwards, water-dressing; when the gray slough separates, which it does, generally, in three or four days, the healthy ulcer left, afterwards must be treated in the usual way, with wet lint and oiled silk; stimulating it with red wash or solution of the chlorate of potash, should the granulations become exhuberant. Collections of serum, formed after the operation, may be allowed to ooze away through punctures made into them by a needle.

Canquoin's paste.—Rollet and Diday assert that this caustic, composed of equal parts of chloride of zinc and flour, whilst exceedingly efficacious, gives very little pain. It is made by drying the powdered chloride over a spirit lamp, before mixing it with dried flour, by adding alcohol drop by drop until the paste is formed, which is to be spread thinly on a cloth and again subjected to a gentle heat, a disc of this paste, corresponding in shape to the chancre and slightly exceeding in size, is cut out and retained upon the surface, previously cleaned of matter, from one to three hours, and in large phagedenic ulcers, from four to six hours, the patient keeping his bed until the paste is removed.

Other caustics.—Nitric, strong acetic, and sulphuric acids, caustic soda, potassa cum calce, and even the actual cautery or knife have their respective advocates. Dr. Bumstead, to whose work much of our former article was indebted, recommends the nitric acid in preference to all other applications, although he confesses that it sometimes requires to be repeated every second or third day.

When wrong to cauterize.—Thorough cauterization is inadmissible when chanceroid extends deeply, and is situated directly over the urethra in either male or female, or in the vagina, when lying in contact with the bladder, rectum, or peritoneum, on account of the danger of an opening being created into these parts on the separation of the slough.—Again, cauterization, is not applicable when the chanceroid cannot be fully exposed as in phymosis, or when situated within the urethra, os uteri, &c., and would be useless unless every ulcer could be reached that would be likely to inoculate anew the eschar.

Nitrate of silver.—This is altogether too feeble in its action for universal adoption in cases of chanceroid, but proves extremely useful in those enumerated that do not allow of a more powerful application. A comparative trial of the merits of the nitrate of silver and the solution of the pernitrate of mercury, would satisfy the most sceptical of the superiority of the latter, for the sore which has long remained stationary or even continued to extend, notwithstanding the constant use of the one, will be found to yield rapidly and cicatrize after a single thorough employment of the other.

Stimulating lotions.—These have the same influence upon a chancre as upon simple ulcers, and although they do not effect its specific character, do much good by keeping the pus removed as fast as it is secreted, and by coagulating the virus and hardening the adjacent tissues, prevent the inoculation of the surrounding parts and check the growth of the sore.

Among the many astringent and disinfecting lotions now in vogue, the following may be mentioned as some of those most frequently employed, viz:—

℞. Zinci chlor. gr. j. aquæ ℥j. m.
℞. Liq. sodæ chlorinatæ ʒj. aquæ ℥ij. m.
℞. Ac. nitrici dil. ʒj. aquæ ℥viij. m.
℞. Tannin ʒij. tinct, opii. ℥ss. aquæ ℥viij. m.

But the strength of these solutions must be adapted to the sensibility of the part, which varies in different cases, they should never be so strong as to excite pain or produce irritation, and indeed in many cases, when constant attention can be paid to them, the lotion might as well consist entirely of water or glycerine.

The dressings should be kept covered with oiled silk, and renewed, in ordinary cases, as often as two or three times a day, that the discharges should not long remain in contact with the sore.

The black-wash, so much employed all over the world, is composed of two scruples of calomel and four ounces of lime water. It is less cleanly and desirable than any of the forms above mentioned.

Acetate of lead is objectionable, on account of its forming an insoluable albumenate of lead on the surface of the sore, which is with difficulty removed, and hides its progress.

Chancres beneath the prepuce, when it can be drawn back and examined, are often dressed with dry lint, which soon becomes sufficiently moistened by the natural secretion of the part.

Chancres of the frænum.—The frænum is particularly liable to be destroyed by chancre. When perforation takes place, the bridle should be cut and the raw surfaces cauterized. Diday recommends the separation to be made with a pair of scissors, which should be dull, these cut and cauterize at the same moment.

Urethral chancres.—The surfaces of urethral chancres, when near the meatus, should be kept separate by means of wet lint, which should be pushed down upon the sore with a probe, and have a thread attached to it to facilitate its withdrawal. When out of sight, the case must be treated as in gonorrhœa, by first subduing the inflammatory symptoms, by diet, rest, diluents, cathartic medicines, &c., and the employment of emollient urethral injections, afterwards resorting to those which are more powerful.

Phymosis.—If the chanceroid be concealed by a tight and inflamed prepuce, free use should be made of the syringe, with tepid bathing of the part, which will not only keep the secretion from collecting, but also contribute materially to the reduction of the inflammation. When possible a little dry lint may be passed up to the sore and allowed to remain for a few hours before removal. When the head of the penis is swollen and painful, it must be kept constantly buried in an emollient poultice or be fomented with infusion of poppy heads.

Iron, internally.—When soft chancres are slow in healing, Dr. Thompson remarks, that nothing appears to hasten cicatrization so much as a mild form of iron given internally, and the potassio-tartrate appears to him to be the most successful in such cases; he prescibes it in doses of a scruple, in water, twice a day.—*Canada Lancet.*

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ANTIDOTES FOR STRYCHNIA.—Professor Ranieri Bellini, after conducting a long series of experiments on poisoning by strychnia and its salts, arrives at the opinion, that the best antidotes are tannic acid and tannin, chlorine, and the tinctures of iodine and bromine. Chlorine, he maintains, attacks the strychnia even when it is diffused through the system; for he found that in rabbits poisoned with the sulphate of the alkaloid, on being made to inhale chlorine gas in quantity such as was not sufficient in itself to kill, the convulsions were retarded, and were milder when they occurred; death also was less rapid. The author further observed, that when strychnia was exhibited with pyrogallic acid, the convulsion was retarded for the space of half an hour, in comparison with other experiments in which the alkaloid was given by itself. Professor Bellini believes that this arrest in symptoms is not dependent on the acid acting chemically on the strychnia, but only through the stringent effects produced by the acid on the mucous membrane of the stomach, whereby the absorption of the poison is rendered difficult. The same author, dwelling on the frog-test for strychnia, asserts that this test is not to be trusted, inasmuch as other poisons produce the tetanic symptoms, although in a lesser degree. He adds, in speaking of the effects of the antidotes to which reference has been made, that he trusts his results will have a bearing not only on the treatment of strychnine tetanus, but on traumatic and idopathic tetanic disease.—*Lon. Medical Review.—Am. Jour. Medical Sciences.*

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TAPPING JOINTS DISTENDED WITH FLUID.—Professor Inzani, of Parma, in a paper on this subject, in *Omodei's Annali*, begins by asserting the perfect harmlessness of puncturing a distended joint, even during the progress of acute inflammation. The fear of bad consequences following from the wound of the tendinous structures is a mere imagination of the ancients; nor does the air ever appear to make its entrance. The puncture may be made with a trocar or a lancet; the latter is preferable for superficial joints. The author has operated very frequently on the knee, several times on the elbow, occasionally on the carpus and ankle, and once only on the hip; no bad consequences ever followed. Pressure by means of a starched bandage should be made, and when the synovial sac refills, it should be again punctured before the distension has advanced too far. In this way a radical cure may be obtained. Examples are given in which large joints, principally the knee, were open for effusions of blood, of serum in acute inflammation, and of pus,—usually with a successful result. But paracentesis should be avoided where the skin is much thinned and ulceration seems impending. In the synovial bursæ, paraentesis has given equally good results. The examples which are given are those of effusion in the sheaths of tendons after accident (as the peronei in sprains of the foot, the extensors of the thumb in falls of the hand), in which a puncture will give exit to synovial fluid mixed with blood, with much relief to the pain and abbreviation of the course of the disease. The author believes that by these punctures chronic synovitis may often be arrested in cases which, treated by ordinary methods, would end in "white swelling," and that in dropsy of the joint the treatment by repeated puncture and pressure is as effectual and more safe than by injections.—*London Med. Review and Dublin Medical Press—Am. Jour. Med. Sciences.*

On a Remarkable Case of Injury of the Head, in which the Right Restiform Body and the Right Posterior Column of the Spinal Cord were divided transversely; with Remarks.

BY A. T. H. WATERS, M. D.,
Physician to the Liverpool Northern Hospital.

THE following is a brief abstract of the case:—

John M'Bride, a sailor, aged twenty-three, was admitted into the Liverpool Northern Hospital about noon on the 19th of February, 1863. He had received a blow on the side of the face on the previous day from a capstan bar, which stunned him for a short time. On presenting himself at the hospital he was able to walk with assistance. When seen by the author he was in bed. He was quite conscious, understood everything, and spoke rationally and distinctly, although articulation was not quite perfect. He complained of slight dizziness of the head, and slight numbness of the right side of the face and of the right arm and leg. He was unable to swallow, and had constant hiccough. The face was dusky; the breathing quiet; the pulse 100, and regular; the tongue was protruded in a straight line; the uvula was drawn to one side. There was partial loss of power over the right side of the face, and right arm and leg; both these limbs could, however be readily raised. He could open and shut both eyes. The pupils were rather dilated; the eyeballs constantly rolling about. No affection of vision or of hearing was complained of. The right side of the face and right arm and leg were of higher temperature than the corresponding parts on the opposite side. The patient said he could distinctly feel when touched on either side of the face, on either foot, leg or arm. Sensation appeared slightly less perfect on the right side than on the left, *but on both sides it was good.* The patient died somewhat suddenly, at five P. M. on the day of admission, after an ineffectual attempt to swallow. He had survived the accident about twenty-four hours.

After death the cranial bones and the vertebræ were found unfractured. The cerebrum was healthy. There was considerable quantity of slightly colored fluid at the base of the skull and in the spinal canal; the venous sinuses were very full of blood; the right hemisphere of the cerebellum was slightly and very superficially lacerated on its under surface, close by the side of the right restiform body. The medulla oblongata at its posterior aspect and right side was the seat of an extravasation of blood lying beneath the pia mater. This extravasation was on the nervous substance, and was connected with lacerations of that structure. The parts having been hardened in spirit, two transverse lacerations were found connected by a verticle one. The first or superior laceration involved the right restiform body about its middle; the laceration extended to within a very short distance of the median furrow of the fourth ventricle behind; to the outer side and in front the laceration extended as far as the line of the origin of the eighth pair of nerves. Blood was effused between the lacerated parts, and separated them from each other. The nervous substance in the adjacent part was also infiltrated with blood. The median furrow of the fourth ventricle was pushed a little towards the left side. As far as it was possible to judge, this laceration involved the whole of the fibres of the right restiform body, and a portion of the grey matter spread out on the floor of the fourth ventricle. None of the roots of the eighth pair of nerves were torn; but the laceration extended close to the superficial origin of the glosso-pharyngeal and par vagnum, and no doubt involved their deep fibres. The second or lower laceration was situated just below and to the right of the nib of the calamus scriptorious. It had divided that part which is known as the posterior pyramid and the tract outside of it, which is the continuation of the posterior column of the cord. The laceration extended about two lines into the nervous substance; it stopped behind at the median fissure, and externally it did not extend beyond the line of attachment of the posterior roots of the spinal nerves. Blood was effused as at the upper laceration. These two lacerations were connected by a vertical one, which ran down along the inner side of the restiform body, and terminated below by joining the inner part of the lower laceration. The lungs were loaded with black blood. The heart was healthy.

The author remarked that the importance of the case was in the fact that the parts which were formerly supposed by most physiologists, and still are by some, to be the sensitive tracts, were divided on one side without loss of sensation ensuing. The case was remarkable as presenting us with a repetition in a healthy man of these experiments so often performed on the lower animal by the physiologist—namely, division of certain portions of the cord or medulla.

The results of the case tended to confirm the views recently advanced by some physiologists, that the posterior columns of the cord of the restiform bodies are not the channels by which the posterior roots of the spinal nerves communicate with the sensorium; and to refute the opinion that those structures are concerned in that function.

With regard to the minor symptoms, they for the most part agreed in a remarkable manner with the lesion which was found. So severe a laceration of the restiform body could scarcely happen without involving the deep origin of the facial, the glosso-pharyngeal, and the pneumogastric nerves. Hence the symptoms or paralysis about the face, etc., which had been referred to. The immediate cause of death appeared to have been a sudden arrest of the function of breathing.—*Lancet.*

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Prolapsus of the Rectum Treated by the Hæmorrhoidal Clamp.

BY MR. HENRY SMITH.

THE following case serves to illustrate in a remarkable manner the value of the treatment of hæmorrhoids and prolapsus of the rectum adopted by Mr. Smith, for the patient was in such a state that it would have been out of the question to use the ligature, and yet the man was suffering so much from the local complaint that some treatment was called for.

J. B——, aged forty-nine, had been under the care of Dr. Garod for two months with severe pyrosis and diarrhœa, attended with symptoms of great debility; and there was an anxious, sallow look about his face, as though some organic disease existed. Under treatment; however, he improved, and before he was transferred to Mr. Smith the pyrosis and diarrhœa had ceased; ease he remained very feeble, and was much troubled by a large prolapsus often had existed for eighteen months. On examination, there was found in "wh protrusion of the entire circumference of the rectum, forming three puncturegments which were not returnable.
London .pril 11th the operation was performed. Each segment of the pro-

truded membrane was separately secured by the screw clamp, and the free portions were cut away by the scissors. The actual cautery was then applied very freely to the cut surfaces, as the parts were excessively vascular. This being done, the clamps were successively removed, and the bleeding was found to be arrested except at one spot where an artery spouted out; and Mr. Smith, instead of compressing it and applying the actual cautery again preferred placing a ligature upon it.

This man had not a single bad symptom; there was no subsequent bleeding, and the bowels were opened by injection on the fourth day, without bleeding or much pain. The parts, which were a good deal swollen from the operation, gradually contracted under the use of alum wash. The sloughs separated from the mucous membrane in a week, and a fortnight after the operation the man was discharged well.

In some observations which Mr. Smith made on this case, he stated that neither would he nor any other surgeon have dared to operate on this patient with the ligature, and nitric acid alone would have been useless in so severe a case; but he had such confidence in the safety and efficiency of the treatment by the clamp that he did not hesitate for a moment to adopt it here, although there was good reason to believe the man was laboring under some organic disease. The only possible danger a patient could incur was from hemorrhage; but this can be avoided with ordinary care and by the use of the screw clamp, and more especially by the employment of the actual cautery, when the parts are so vascular as was the case here. It is true that at one point the bleeding was not commanded after the use of the cautery, but if he had chosen he could have arrested it by a further application of a differently-shaped cautery; but as the operation had lasted a long tlme, the man being feeble, and not under the influence of chloroform, he preferred placing a ligature around the bleeding point at once. Next to the great safety of this plan of treatment, was the short time necessary for the cure In most cases the patients were up and about in three or four days.—*London Lancet.*

Displacement of the Bladder as a Cause of Tedious Labor.—Dr. W. H. Broadbent, read before the Obstetrical Society of London, March 4, 1863, a communication, the purport of which was to show that, besides the mechanical obstruction which may be presented by the prolapsed and distended, bladder to the descent of the head of the child, prolapsus of the bladder complete or partial, frequently renders the first stage of labor long and painful. The uterine contractions causing pain in the displaced bladder, it was said, were replaced by spasmodic contractions of the abdominal muscles, which forced down the uterus, but had no effect in dilating its mouth. These were attended with much suffering, of a character very different from the natural labor pains at this stage, which with tactile examination would lead to a recognition of the cause. The measures recommended for the relief of the pain and for expediting the progress of the labor were the supine position, prevention of accumulation of urine by the use of the catheter, and, in severe cases, chloroform. Cases were given in support of these conclusions.—*Med. Times and Gazette.*

C

ORIGINAL PAPERS.

Cheiloplastic Operation.

BY H. H. TOLAND, M. D.

Richard Dalton, aged 40 years, and otherwise apparently in good health, had been suffering for more than two years from cancer. When he became my patient, the entire lower lip was involved, as may be seen by referring to the plate.

Finding it impossible to remove the diseased part without exposing the front teeth and a portion of the inferior maxillary bone, I determined to try the same operation as in the case published in the last number of the Pacific Medical and Surgical Journal, with the exception that the space was filled by taking a small flap from each cheek, instead of from one side only.

After preparing suitable patterns and the administration of chloroform, on the 19th of April, a flap about two inches long was dissected from each side of the face. The diseased lip being removed, they were twisted at the base, brought into contact in the centre, and secured by the interrupted silver suture. They were then attached to the edges of the wound on the chin, which, with closing those on the side of the face, completed the operation.

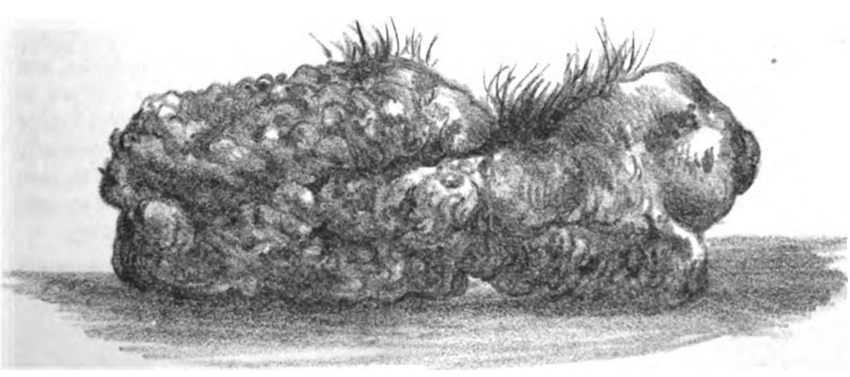
Lint covered with simple cerate was then applied, and secured gently by a suitable bandage.

Although he was very imprudent, having lived upon the diet usually found in hotels, union was complete on the 23d, except in the centre, which resulted from half an inch of the flap taken from the left side of the face having sloughed. A sufficient quantity of healthy material remaining to supply the deficiency, the diseased portion was removed, and the edges approximated as before.

The day after the operation he disappeared from his boarding-house, and was not seen for ten days, having gone home to visit his friends. When he returned, although he lived as usual, the wounds had healed entirely, except near the base of the flaps on each side. They were then divided, properly adjusted, and in a few days the cure was complete. Now, as may be seen by referring to the lithograph, but little deformity exists, and in a few months that necessarily resulting from the operation will be greatly diminished.

On the 1st of August, the disease which rendered the operation necessary had not returned, aud he enjoyed good health.

PLATE TO DR TOLAND'S PAPER



Case of Death from Convulsions, with Long Standing Caries of the Temporal Bone.

BY J. D. B. STILLMAN, M. D.

On the 28th of February last, I was called on to give an opinion in the case of Miss D———, Howard street, who was supposed to be laboring under an organic disease of the heart. Her age was between eighteen and nineteen years, her stature was small, and her general aspect that of a girl of delicate organization. Her face, generally pale, was subject to quick flushes on the slightest cause. Her menstruation was irregular and scanty, bowels habitually constipated, tongue pale, tonsils enlarged, appetite capricious and digestion bad. Disorder of the cerebro-spinal nerves was further shown by occasional violent palpitations, pain in the top of the head and over the sacrum. The lungs and heart afforded no indications of organic disease. Over the right caroted artery a continuous murmur was audible—the *bruit de Diable*, but very faintly. Another visit was made on the following day; the conditions remained the same, except that there was no palpitation of the heart.

I saw no more of the patient until the month of June, when she came under my care. Regarding the case as one of Chlorosis, with irritable uterus, I ordered Mist. Ferri Comp., but afterwards substituted the following mixture:

℞ Ferri Citratis ℥ss
Syr Zingiber
Aquæ puræ aa ℥ij
A teaspoonful to be taken three times a day.

I was called to her next on the 6th of July, on account of a severe headache, accompanied by vomiting. The tongue was coated along the centre, and the edges were slightly indented. I directed an occasional draught, containing Super. Carb. Soda, and the next day found her relieved. A week after, I was recalled to the house, and found her suffering as before. On this visit I was told that about twelve years ago she had the measles, which was followed by a discharge from the right ear, and that she had been subject to occasional fœtid and sanguino-purulent discharges from the ear ever since. There was deafness on that side, and I found the drum perforated. Of course this could not but be considered as a complication that might lead to the gravest consequences. Still there were no symptoms present that might not be connected with hysteria, which was strongly marked. I prescribed Tinct. Valerianate Ammonia with Hoffman's Anodyne. I saw her next on the 22d of July. The pain in the head, which was now in the right temporal region, was very severe, and the only relief she felt was in having her head pressed firmly between the hands. The head was not morbidly warm, nor was the tongue coated; the pulse was quick, but soft. Her mother told me that no entire day since my last visit, had she been free from vomiting; now it was violent, at short intervals, and the fluid vomited was dark green. Though but little food could have been retained, she had not lost her *embonpoint*, or her spirits, and she contemplated going that evening to a party, to which she was engaged. A clyster containing Tinct. Opii gtt. xxx. was administered. Before I left the house the patient was seized with an epileptic convulsion; it was of short duration, but it was some twenty minutes before she returned to a consciousness of pain. An hour after the first, she had a second convulsion, which her mother represented as similar to the first. I proposed a consultation, and Dr. Nuttall met me on the evening of the same day. After a careful examination, Dr. Nuttall concurred with me in the opinion that the greatest source of anxiety we had, was the suspicion that the convulsions were attributable to irritation at the base of the brain, caused by the proximity of a diseased internal ear, but that he hoped, however, that the symptoms present were the result of hysteria; and advised that anti-spasmodics should be persevered in. The following mixture was ordered:

℞	Ammon. Carb.	ʒij
	Aquæ	ʒvi
	Muc. G. Acac.	
	Syr. Simp aa	℥ss
	Fl. Ext. Valerian	ʒj

To be administered in table spoonful doses.

As an enema, the following was also directed:

℞	Tinct Assafœtidæ	℥ss
	Ol. Ricini	℥j
	Muc. G. Acac.	
	Aq. puræ aa p. æ. ad	℥viii

To be followed by large enema of warm water.

July 24th. Patient passed a restless night, but there were no convulsions until this morning, when four occurred within an hour; there was an occasional appearance of delirium, but no tendency to coma; no irregularity of the pupils, or other usual manifestation of disease within the cranium. The pain seemed to be less violent, and the vomiting, though still continued, was not so severe as on the preceding day. I saw her last about noon; she was then quiet, and seemed to be asleep. Having been called away that afternoon, Dr. Nuttall called for me about three o'clock, and on going to her room with her mother found her dead.

SECTIO CADAVERIS.

Twenty-four hours after death, Dr. Claybourne and myself made an examination of the body. On removing the calvarium, the sinues and superficial veins beneath the pia mater, were found congested. The ventricles contained the usual amount of fluid, and in other respects the brain was free from lesion; the dura mater was firm, and firmly adherent to the petrous bone on both sides, except that, on the posterior face of the right petrous bone, and over the carotid canal, there was a spot, which might have been covered with a half dime, where the dura mater was softened so that it yielded to the forceps; underneath it was a lamina of bone exfoliated. The medulla oblongata was not examined. The organs within the thorax were all healthy; the heart was normal in size, the serous surfaces were smooth, the valves were smooth and diaphonous, and in all respects in a perfectly normal state. The abdominal viscera were also free from disease as far as examined, the intestines were empty and distended with gas.

The passage of a probe into the right external meatus auditorius, revealed the destruction of the membranum tympani and the mucus membrane of the tympanum. The entire petrous portion of the temporal bone on that side was now removed, with the saw, and a minute dissection of it subsequently made. The dermoid membrane of the external meatus was sound as far as the membranum tympani, all trace of which was destroyed, and the cavity of the tympanum was partially filled with pultaceous matter, the mastoid cells communicating with it, were entirely so; the incus and the malleolus were gone, and the stirpes fell from its place with a slight touch. The membrane of the fenestra ovalis was intact, the fenestra rotunda was destroyed in the dissection. There was no trace of pus in the vestibule, cochlea, or semi-circular canals, nor was there any caries of the bones which form their walls, but the entire surface of the bony walls of the tympanal cavity was denuded and eroded by caries, as was that of the mastoid cells.

REMARKS.

The chief point of interest in this case is to determine what morbid condition contributed most to the fatal result. Violent and protracted vomiting, severe headache and epileptic convulsions are common in Hysteria, but rarely if ever lead directly to death; but it is probable, that that morbid state of the spinal nerves predisposed the patient to epileptic seizure, from an exciting cause, that, in another patient, would not have produced such a result, until the caries of the petrous bone had proved fatal by its disorganization of the brain and its membranes, which would have been manifested, in addition to epilepsy, by coma, irregular contraction of the pupils, and such other symptoms as the practitioner is familiar with, as indicating cerebral disease.

That the local disease of the ear was the principal exciting cause of the fatal symptoms, seems to me probable, for the following reasons:

1st. The pain in the head was confined during the last few days, to the side of the head corresponding to the diseased ear.

2d. The character of the vomiting.

Although some of the most obstinate cases of vomiting I ever saw were sympathetic with the uterus, or hysterical, and it is not a usual accompaniment of auro-cerebral disease, yet cases do occur where violent vomiting proceeds from "*membranous irritation with a diseased ear,*" and that, where there is no lesion sufficient to destroy life.

Take for example, the following case from "Habershon on *Vomiting as a Sign of Disease:*"*

"A fortnight before admission, whilst at work at 9 A. M., he experienced a sudden pain at the back of the head, as if he had received a blow, at the same time he had much pain on trying to turn his head, and he was carried home. Sickness came on the same day, the stomach rejected everything, and this irritability of the stomach continued till admission. Eight days before admission he had a discharge of blood and pus from the left ear, which lasted three or four hours, with constant tinnitus aurium; and he had slight pain over the mastoid process; the pupils were of natural size, and skin cool. There was no evidence of thoracic disease; the pulse was 48, and laboring. He complained of severe pain in the head over the eye-brow, and at the back of the head; there was excessive irritability of the stomach, fluids were instantly rejected, and the vomited matters contained much green fluid." This pain of the head and vomiting continued after his admission to Guy's Hospital on the 23d of May, until the 4th of June, when it suddenly ceased, and he was discharged soon after, and he continued well four months, when by intemperance he had a renewal of his old symptoms for two weeks, and he was discharged cured.

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* Guy's Hospital Report, third Series, vol. VII.

3d. It is not possible to determine, a priori, what amount of pain or irritation is necessary to induce epilepsy; teething is sufficient often in infancy, and worms in the intestines, and undigested food in the stomach of some adults; death may ensue, and yet the knife failed to discover anything more than the congestion which the convulsions produced. However, many causes *may* produce epileptic convulsions, the occurrence of them in chronic disease of the middle ear, is an event to be looked for.

Dr. Abercrombie relates the case of a girl who had been liable to attacks of suppuration of the ear. "When Dr. Abercrombie saw her he found that besides the pain in the head, she had vomiting and impatience of light. Two days afterwards there was slight and transient delirium, a degree of stupor and slight convulsions. She *lay with both her hands pressed upon her forehead*, and moaning from pain, of which there had not been the least alleviation. On the fifth day she continued sensible and died, suddenly, in the afternoon, without either squinting, blindness, or coma, the pulse having never been over 90."[*]

I will take the liberty of introducing in conclusion some remarks by Jos. Toynbee, published in vol. xxxiv of the Transactions of the *Royal Medical and Chirurgical Society*. "Chronic catarrhal inflammation of the mucus membrane of the tympanum, one of the affections which has been comprised under the term otorrhea, most frequently originates at the period of childhood, and an attack of cold, scarlet fever, measles, or low fever, is generally the exciting cause. The predisposing cause may almost always be traced to a tendency to glandular enlargement; and although this affection of the mucus membrane of the tympanum occurs sometimes when the tendency above alluded to does not exist, still I think it will be found that in these cases it does not remain longer than a few weeks, and that it never terminates in disease of the bone.' "Chronic catarrhal inflammation of the mucus membrane of the tympanum may continue during many years without the occurrence of any ulcerative process, but its presence is very commonly the cause of disease in the petrous bone

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[†] Bouchut on Children. Translated by Bird, page 239.

and in the cerebrum. In some cases the irritation of the mucus membrane of the tympanum appears to be sufficient to originate disease in the cerebrum, and an abscess is developed in its substance, without the occurrence of any morbid condition in the bone or dura mater."

"The preceding observations, together with the report of cases as detailed in the Tables, appear to show that chronic catarrhal inflammation affecting the dermoid layer of the membranum tympani, the dermoid meatus, or the mucus membrane lining the cavity of the tympanum, if allowed to proceed unchecked or uninfluenced by the aid of remedial measures, is liable to produce results fatal to life. These fatal results may occur within the first few months of the existence of the disease, or they may be deferred so long as ten, twenty, or even fifty years; in some cases patients die at an advanced period of life from disease quite independent of that in the ear. The result of my investigations nevertheless tends to show, that the affections above named cannot exist during many years, without causing a greater or less amount of disease in the bone, dura mater, or brain; and it is evident from the inspection of cases, in which some disease irrespective of the ear has caused death, that a very trifling exciting cause would have been sufficient to give origin to fatal disease in the brain. It is important therefore, to bear in mind that the bone, dura mater and substance of the brain may be slowly undergoing disorganization, without the presence of any other symptom calculated to reveal to the medical man the existence of formidable disease, than the presence of a discharge from the external auditory meatus.

I think it may be laid down as a rule that *no person suffering from catarrhal inflammation of thedermoid layer of the meatus, the membranum tympani or the mucus membrane of the tympanum can be assured that disease is not being prolonged to the temporal bone, the brain, and its membranes: and that any ordinary exciting cause, as an attack of fever or influenza, a blow on the head, etc., may not induce the appearance of acute symptoms, which, as a general rule, are speedily fatal.*"

San Francisco, August 18th, 1863.

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HYDROPHOBIA.— During a series of experiments made by Professor Renault and communicated to the Academy of Sciences, respecting the period required for the development of symptons of hydrpohobia, he caused 131 dogs to be either bitten by mad dogs, or inoculated with their saliva. Of this 63 showed no symptoms during a period of four months, and was therefore considered free. Of the remaining 68, 31 became mad and after the 40th day, 23 after the 45th, 16 after the 50th, 14 after the 55th, 12 after the 60th, 8 after the 65th, 7 after the 70th, 3 after the 80th, and 1 upon the 118th.—*London Lancet.*

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

VII. THE METHODIC SCHOOL.

THE stubborn prejudices of the Romans against Hellenic arts and sciences were gradually overcome by the progress of civilization. A knowledge of the Greek language had become a necessary accomplishment, and the Roman student, no longer satisfied with the poverty and rudeness of his own literature, not unfrequently resorted to the vast stores of learning thrown open by the victories of Lucullus and Pompey in Greece and Asia Minor. The poets, rhetoricians and philosophers of Athens became his chosen models; and, when Cicero flourished, the gates of Rome were no longer closed against learned foreigners.

Prominent among those attracted to Rome by these auspicious circumstances, was Asclepiades of Bithynia. The accomplished professor of *belles-lettres* was not slow in perceiving the extraordinary opportunity which was offered to acquire fame and riches by the introduction and practice of a more rational system of medicine than the one which had until then been in vogue.

The Romans were, at that period, too highly enlightened not to understand the real character of their domestic medicine; and a system, howsoever defective, but based on rational principles and which discarded magical art, superstitious practices and absurd and disgusting formulas, could not fail to be received with favor.

Abandoning his former occupation and changing his literary pursuits for the study of medicine, to which he diligently applied himself, Asclepiades soon became not only a renowned practitioner, but the founder of a new medical system. Wisely avoiding the blunders which had caused the failure of Archachagathus, he restricted himself almost entirely to medical practice. He thus secured the good will of the people generally, while, by the charms of his superior intellect and the refinement of his manners, he gained the friendship and protection of the rich and powerful. He was the physician and friend of Cicero and other eminent men of the Republic, and his position in Rome was such, that he could not be induced to leave it by the flattering offers made him by Mithridates, king of Pontus, who wished to secure his services at his court.

The Epicurean philosophy, which, like that of Democritus, was based on the theory of atoms, was, at that epoch, in high favor among the elite of Roman society. Originally, while it proposed no other object to man than happiness and pleasure, it made these consist in the culture of the mind and in the practice of virtue*, but its sectators soon corrupted its doctrines, substituting sensual voluptuousness for pure and intellectual pursuits. Therefore was it that this philosophy, according to the manner in which it was interpreted, suited either a Cicero or a Cataline.

Asclepiades had not studied the Roman character without perceiving that, in the absence of all medical systems, one based on these popular dogmas would possess the great advantage of being readily understood, and also, of suiting the prevailing opinions and tastes. He, therefore, maintained that the human body resulted from the union of molecules or atoms, which, from the different shapes they assumed, left between them innumerable interstices, which he termed pores, through which moved other atoms, destined to repair the systemic waste. The most delicate molocules of this atomic movement furnished the principles of animal heat and of the pneuma, while the material for the blood and humors was derived from the less subtile particles. The regular or irregular movements of these atoms, the proportion or disproportion between them, and the constriction and relaxation of the pores constituted the condition of health or that of disease.

Rejecting the teleological tenets of the Dogmatists, he professed to believe only in the existence of matter in activity. His doctrine was, that all the phenomena that bodies presented, depended on the diversity of the elements which composed them and on the movements with which they were endowed. He placed the seat of all maladies in the solids, the humors constituting only occasional causes. He denied all sympathy between the different parts of the body—sustained that accident alone taught us the use of our organs; and, disputing that the efforts of nature tended to promote health, he ridiculed the theory of coction, crisis and critical days, and sarcastically styled the circumspect method of Hippocrates "*a meditation on death.*" He did not admit the existence of the soul as a principle *sui generis*, but declared that it resulted from the *pneuma.*

Asclepiades divided diseases into two great classes—acute and chronic;—(a distinction which, until then, had not been made)—the acute being supposed to depend essentially upon a constriction of the pores, or an obstruction of them, caused by a superfluity of atoms—the chronic, upon a relaxation of the pores, or a deficiency of atoms.

For the treatment of maladies, Asclepiades gave the following precept:—"The best method for curing is the surest, the quickest and the most agreeable." † In his practice, which was chiefly hygienic, he resorted principally to diet, regimen, frictions, gymnastic exercise, and banished all violent remedies. He introduced the use of cold water internally, as well as externally, in a variety of diseases, and extended his popularity by the frequent allowance of wine.

"His theory,"‡ says Pliny, "was that there are five great principles of treatment for all diseases; diet, use or non-use of wine, frictions, exercise on foot, and exercise in a carriage or on horseback. As every one perceived that each of these methods of treatment lay quite within his own reach, all, of course, with the greatest readiness gave their assent; willing as they were to believe that to be true which was so easy of acquisition; and hence it was that he attracted nearly all the world about him, as though he had been sent among mankind on a special mission from heaven."

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* See Diogenes Laertius. Lives of Philosophers, Lib. x. Epicurus.

† "Asclepiades officium medici esse dicet, ut tuto, ut celeriter, ut jucunde curet." Celsus. lib. iii. c. 3. p. 93.

‡ Op. cit. lib. xxvi, c. 7—8.

"In addition to this, he had a wonderful tact in gaining the full confidence of his patients; sometimes he would make them a promise of wine, and then seize the opportune moment for administering it, while on other occasions again, he would prescribe cold water: indeed, as Herophilus, among the ancients, had been the first to inquire into the primary causes of disease, and Cleophantus had brought into notice the treatment of diseases by wine, so did Asclepiades, as we learn from M. Varro, prefer to be indebted for his surname and repute to the extensive use made by him of cold water as a remedy. He employed also various other soothing remedies for his patients; thus for instance, it was he that introduced swinging beds, the motion of which might either lull the malady or induce sleep, as deemed desirable. It was he, too, that brought baths into such general use,—a method of treatment that was adopted with the greatest avidity—in addition to numerous other modes of treatment of a pleasant and soothing nature."

Pliny adds that Asclepiades rejected the practice, which was common at that time, of covering patients with a vast number of clothes to promote perspiration. He introduced the contrivance known as the shower bath (Balnea pensilis), condemned the indiscriminate use of emetics and other active internal remedies, and discarded magical art and superstitious practices.

Notwithstanding his aversion to surgery, he was, according to Galen, the first who advocated tracheotomy in threatened suffocation.

The anatomical knowledge of Asclepiades was exceedingly limited. According to Galen, he believed that the urine contained in the bladder was derived from vapor passing therein through pores from the stomach; and that food, without undergoing any change by remaining in the stomach a few hours, was immediately distributed to all parts of the body. He is also blamed for having rejected drugs generally, and for having paid little or no attention to materia medica. However, notwithstanding his hypothetical theories and his errors, Asclepiades, by sapping the foundations of the gross Empiricism which, until then, had had full sway in Rome, and by substituting rational dogmas for superstitious practices, exercised a most beneficial influence on medicine—an influence which, however, has not always been properly appreciated by medical historians. *

The system, of Asclepiades was not destined to have a long duration, without undergoing important modifications. Subjected to the criticism of phy-

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* The works of Asclepiades have long since been lost, but numerous quotations from them have been transmitted to us through Celsus, Cælius Aurelianus, Aetius and Galen. We have besides particular notices of him by Pliny, Cicero, etc.

sicians educated in other schools, his atomic doctrines, being destitute of proof, could not be effectually sustained.

A disciple of his—Themison of Laodicea, undertook to preserve the main theory of his master concerning the constriction and relaxation of the tissues by adopting a method which set aside, as unnecessary, all inquiries into the occult causes of physiological as well as of pathological phenomena. This received the name of "Methodic system". After having thus rejected the atomic hypothesis of Asclepiades, Themison simplified the science by reducing it to a few general laws which he deemed evident. He classified all diseases under three heads:—*strictum, laxum, mixtum*;—the first class originating in constriction; the second, in relaxation of the fibres, the third was merely a mixture of these two states. This division was based on the opinion that all organic tissues were furnished with innumerable pores. If it was objected that this, like the atomic theory, was a mere hypothesis, he endeavored to demonstrate the contrary by an inductive method of reasoning. No one, he said, denied that the skin was supplied with pores; although these were not *discernable*, their presence was made evident by the outward passage of perspiration. He added, as a consequence of this, that all the organic tissues were similarly furnished with pores, containing more or less matter, according to their contracted or relaxed state.

Disease was the result of excessive contraction or relaxation. Swelling, tension and hardening of structures, suppression of natural evacuations, etc., came under the common designation of constrictive species, *strictum*. Diminution of structures, softening of tissues, the increase of ordinary evacuations, or the appearance of some abnormal evacuation, were referred to the common term of relaxed species, *laxum*. Diseases which presented a coincidence of signs indicating both constriction and relaxation, constituted the mixed species, *mixtum*.

The following will give an idea of the classification of particular diseases, under this system:—

1st. STRICTUM—*Acute diseases:* Lethargy, catalepsy, apoplexy, phrenitis, angina, convulsions, ileus, etc. *Chronic:* Cephalalgia, vertigo, epilepsy, mania, jaundice, amenorrhœa, obesity, etc.

2d. LAXUM—*Acute diseases:* Cardialgia, cholera,* etc. *Chronic*—Diarrhœa, emaciation. hemorrhoidal flux, menorrhagia, hæmoptysis, etc.

3d. MIXTUM—Pleurisy, peripneumonia, bronchitis, colic, dysentery, dropsy, etc.

Themison consequently recognized only two sorts of remedies—those which constricted and those which relaxed—using both, or one after the other, in diseases of the third or mixed class. It is difficult to understand the nature of this third class; in fact it appears to have been a refuge for all varieties of morbidity that could not conveniently be ranged under either of the two other divisions.

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* C. Aurelianus defined Cholera: "Solutio stomachi, ventris et intestinorum cum celerissimo periculo."

The great object of Themison seems to have been to simplify medicine as much as possible. In so doing he endeavored to conciliate all parties and avoid objections by adopting a middle course between the Dogmatists and the Empirics. While he differed from the first in rejecting occult qualities as a basis for his theory, he did not, like the latter exclude rationalism, but he deemed it necessary to confine it to evidences furnished by organic action. In carrying out these principles, like Asclepiades, he divided diseases into two great classes of acute and chronic, but neglected or ignored the facts and considerations which did not apply to the two elementary pathological conditions of *strictum* and *laxum*.

Themison is said to have been successful in his practice. There is, however, a line in Juvenal, which would insinuate the contrary:

"Quot Themison ægros autumno occiderit uno."

Certainly what Cælius Aurelianus says of it seems to justify the severity of the satirist: for in pneumonia, even of the most violent character, he regarded oil and baths as infallible remedies; his favorite prescription in pleurisy was wine mixed with salt water, and he recommended trepanning in apoplexy. The first mention of the application of leeches is attributable to him.

Numerous followers were attracted by the simplicity and apparently strict logic of Themison's system, and for three or four centuries it predominated over all others. Among the most remarkable Methodics, were Thessalus, Soranus, and Cælius Aurelianus.

Thessalus of Tralles, appeared in Rome, about half a century after Themison. It is said in his favor that he included in his system the practice of surgery, which had been excluded by his predecessors of the same school, and that he extended the field of therapeutics, by modifying Themison's pathological views, so as to consider the seat and periods of diseases.

Uniting the speculations of Asclepiades with those of Themison, he framed a system from both, with the addition only of what he termed *metasyncrisis*. We have seen that, according to the first Methodics, all bodies were formed of atoms. Life was the result of their union—death, that of their extreme disunion. The term *metasyncrisis* signified the *recomposition* of atoms in parts of the body where they were undergoing dissolution. But although Thessalus claimed for himself the honor of having formed a new theory in medicine, he is rated as an ignorant pretender, by both Pliny and Galen.

Here is what Pliny says of him: "It was during the reign of the Emperor Nero, that the destinies of the medical art passed into the hands of Thessalus, a man who swept away all the precepts of his predecessors, and declaimed with a sort of frenzy against the physicians of every age; but with what discretion and in what spirit, we may abundantly conclude from a single trait presented by his character—upon his tomb, which is still to be seen on the Appian Way, he had his name inscribed as the 'IATRONICES,' the 'Conqueror of the Physicians.' No stage-player, no driver of a three-horse chariot, had a greater throng attending him."*

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* Lib. xxix, c. 5.

Galen is still more severe, and mentions Thessalus only in terms of contempt and ridicule. He accuses him of not having had the least idea of the action of medicaments. He says, also, that the ignorance of this man, who charged Hippocrates with having killed his patients by overpowering their stomachs with food, was equaled only by his baseness; that he was followed to the bed-side of his patients by a multitude of pupils from the lowest classes of society, boasting that it took him only six months to make excellent physicians of them. Galen expresses his opinion on the qualifications of these neophytes, by styling them "the asses of Thessalus."

Soranus, a native of Ephesus, came from Alexandria to Rome, and lived there under the reigns of Trajan and Hadrian. Having adopted the favorite system of the day, he taught and practiced medicine with great success. Though he followed the dogmas and advanced the cause of the Methodics, he did not, like others of that sect, calumniate the ancient writers, but endeavored to refute their opinions by plausible arguments. He is said to have been highly respected for his character and talents. His original writings have perished; but the work of Cælius Aurelianus, if not a literal translation from them,* is, as acknowledged by Cælius himself, a reproduction of the views and precepts taken from Soranus, who is honored by him with the title of "Prince of Physicians." This treatise (De morbis acutis et chronici), is considered one of the most important of antiquity. To it, principally, is due the knowledge we have of the Methodic sect, and much information concerning Diocles, Praxagoras, Heraclides of Tarentum, Erasistratus, Herophilus, Serapion, Asclepiades, Thessalus and Themison, has been preserved and transmitted to posterity through its pages.

The age and country of Cælius Aurelianus have never been positively ascertained. It is believed, however, that he was born in Sicca, a town in Numidia. He is not cited by Galen, nor is Galen mentioned by him; and this omission on both sides, has led to the supposition that they must have been cotemporaries, and through motives, either of jealousy or dislike, they avoided noticing each other.

The style of Cælius Aurelianus lacks ease and elegance, and his expressions not unfrequently betray a want of etymological knowledge. The Methodics avoided definitions, from the fear of breaking a fundamental rule of their system by thus being led into occult explanations. But while Cælius Aurelianus observed this rule, he excelled in the description of the *signs* of diseases. This eminent quality of his writings is so remarkable that Baglivi places them, in this respect, on a par with those of Hippocrates and Sydenham;† and Sprengel asserts that Grainger is not far from right in the preference he gives them over those of Galen and Aretæus.‡

Several maladies are recorded in the work of Cælius Aurelianus, which are not mentioned by any of his predecessors, and his descriptions of them, and of hydrophobia in particular, are full and interesting. He remarks that gout is more common among men than women, attacks the adult, is hereditary, and affects principally the inebriate and indolent. He delineates also with considerable accuracy the symptoms of apoplexy, catalepsy, cynanche, and many other affections.

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* The works of Soranus were written in Greek, and those of Cælius Aurelianus in Latin.

† See Baglivi, de praxi medica, lib. II. C. viii.

‡ Hist. de la Méd., vol. 2, p. 37.

Like Asclepiades, Cælius Aurelianus divided diseases into the two great classes of acute and chronic, without paying any attention to the minute shades by which they generally run into each other. With others of his sect he rejected the theory of the four humors, and sustained that, even if it could be proved that they were really the causes of disease, they had not in their possession the means for acting upon them separately and specifically. He avoided the multiplicity of remedies, and generally selected the most simple, giving the preference to those which had a general action on the whole system. This was in strict accordance with the Methodic theory, which, reducing the science of medicine to a knowledge of what diseases have in common with each other, attached little importance to their different seats, and advocated the same general treatment, with but little modification, for the various affections comprised under the same head. Thus the Methodics treated by the same means mania, amenorrhea, jaundice, etc., which they considered chronic affections of the constrictive class; and on the other hand, peripneumonia, colic, dysentery, etc., which were classified among the acute affections of the mixed order, were also treated alike. "Among the general remedies for resolving constriction, were warm and sunny air, a soft couch, gargarisms of tepid water or of fresh and fragrant oil, fasting, watching, inunction, emollient cataplasms, fomentations and baths, humid cupping, venesection, gestation and passive motion generally, emollient clysters and emetics. For astringing the body, already too much relaxed, they employed cold air, a shaded position, a hard couch, gargarism of vinegar and water, or vinegar and posca (dilute aromatic wine) applied with a sponge, cold lotions containing the juice of plantain, of portulaca, or sempervirens; a diet of barley meal, of lentils or of quinces, or toasted bread moistened with vinegar, sound sleep, repose, dry cupping.

For checking profuse sweating, they sprinkled the surface of the body with powdered chalk or alum and with various other astringents." *

Cælius Aurelianus discarded specifics, because their administration was deemed inconsistent with the doctrine of constriction and relaxation. For the same reason he condemned narcotics, rejected caustics, and seldom employed purgatives and diuretics, except in dropsy. In this disease he prescribed euphorbia, wine of squills, warm aromatics, and supported the abdominal parieties with a bandage during the operation of paracentesis.

He paid the utmost attention to hygienic measures. The size, exposure, temperature, ventilation of the sick-room, and even the arrangement of the bedding, were objects of his minute and particular care.

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* John Watson M. D. "The medical profession in ancient times." p. 133.

He distinguished two kinds of nourishments—one which relaxed and one which constricted. He generally prescribed total abstinence during the three first days of all diseases, and though he did not admit that the efforts of nature tended to the re-establishment of health, his practice was nevertheless distinguished for its simplicity, and was certainly in many respects much superior to that of the other systematists of antiquity.

Chronic affections were generally treated by Cælius Aurelianus according to a method called "CYCLE", which consisted in a certain course of medication and in the observance of precepts for abstinence, diet, etc., during a certain number of days. Nine was the usual number. Cælius Aurelianus admitted three kinds of "*cycles.*"—1st.—To restore patients who were prostrated by the imprudent use of medicaments. It consisted principally in a regimen in which food and exercise, at first prohibited, were afterwards allowed and gradually increased, during the lapse of nine days. 2d. The "*metasyncritic cycle;*" it was especially resorted to in very obstinate affections, after having exhausted other ordinary means. It differed from the first, inasmuch as the aliments which were allowed, were not so easily digested—salt and and highly seasoned food being given. Vomits, fomentations, frictions, baths, etc., were prescribed at regular intervals. 3rd. The third cycle continued, also, about nine days, and consisted in the tedious repetition of the means employed in the metasyncritic cycle, with the exception of some slight modifications in the diet and general medication. If one cycle did not operate a cure another was tried. Mahon quaintly observes, that it must have required the patience of a Job and the constitution of a Hercules to have lived through these courses. *

To this brief sketch of the principal leaders of the Methodic school, we will add only a few words as a *resume.* The Methodics advanced the cause of our science, in giving the first example of nosological classification. But in furnishing these first general notions in the co-ordination of diseases, they mistook the true use of the generalities they had established, and believed "*that the knowledge of the genus dispensed with that of the distinction of the species.*"

The Methodics differed from the Dogmatists in rejecting occult causes as a basis for the explanation of pathological conditions,—and from the Empirics, "in holding personal experience to be but a small part of the art." The superiority of their system over those of their predecessors consisted mainly in setting aside all principles of action, which were not taken from the organism. While they thus simplified the theory of disease, they unfortunately confined it to too narrow limits, by restricting all morbid phenomena to two conditions, viz: constriction and relaxation. They did not realize that these very conditions were often not less obscure than the occult causes of the Dogmatists. They also failed to interpret the true character of the lesions on which these conditions depended. Primary causes, vital properties, alterations of humors, distinction of the parts affected, as well as idiosyncrasy, age, sex, climate, etc., did not arrest their attention. This knowledge, they asserted, could have no important bearing on the treatment. It was enough to know to which of the classes—strictum, laxum, or mixtum,—a disease belonged, as all therapeutical indications were confined to these states.

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* Our limits compel us to refer the reader to the original, to Daniel Le Clerc's Histoire de la Médecine or the Dictionaire des Sciences médicales, article *cyclique*, for full and satisfactory descriptions of the 'cycles.'

In conclusion, the system of the Methodics, though in some respects an improvement on those of their predecessors, was also erroneous from the same cause which had led estray the Dogmatists; for it was founded on an *assumed* knowledge of the primary causes of health and disease, and on a *supposed* physical condition of the body, at least in the great majority of cases. However, proper allowance should be made for these errors, remembering the remote period in which the Methodics flourished, and, also, that they have not been without imitators among systematists, even up to our day. The feebleness of human understanding is no-where better demonstrated than in the records of its struggles to arrive at perfectness and truth respecting our infirmities—and evidences of it will continue to be furnished for the pages of our history until the last sigh of the last man shall have proclaimed the end of human suffering.

LIST OF THE PRINCIPAL AUTHORS CONSULTED FOR THIS (VII) CHAPTER.—Cælius Aurelianus, de morbis acutis et chronicis. Celsus, de arte medica, in præf., et alibi. Plinius, lib. xxix, c. 5. etc. Galen, de sectis. Introductio vel med. etc. Gumpert, Asclepiadis Bithyni fragmenta. Le Clerc, Hist. de la Méd. p. 437—500. Sprengel, op. cit., vol. ii, p. i—45. Tourtelle, Histoire philosophique de la médicine. (Paris 1804). Vol I. p. 398—418. Vol. II, p. 52—79. Mahon, Histoire de la médecine clinique, (Paris 1804); p. 93—124. Baglivi, Pract. med. chap. viii. Dezeimeris, in loco. Renouard, History of medicine, original and translation of Comegys, p. 224—233. Dictionaire des sciences médicales, vol. 33, p. 221—223. Dict. en 30, vol. 19. p. 255—262. Broussais. Examen des doctrines médicales. vol. I, p. 97—135. Auber, Traité de la science méd. p. 143—147. John Watson, medical profession in ancient times, p. 96—137. Guizot, Cours d'Histoire. Gibbon's Decline and Fall of the Roman Empire, etc.

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HEALTH OF SAN FRANCISCO.—The total number of deaths for the month of July was 180, being five more than for the month of June; 97 were recorded in the Lone Mountain Cemetery, of which 25 were under three years; 82 in the Roman Catholic burying ground, of which 27 were under three years; and 1 in the Jewish Cemetery. The principal causes of death are recorded as follows: Consumption, 22; lung diseases, 5; brain diseases, 7; heart diseases, 2; fever, 5; typh fevers, 5; dropsy, 2; diarrhœa, 2; cholera infantum, 3; dentition, 8; dysentery; 1; diphtheria, 2; erysipelas, 1; scarlatina, 1; whooping cough, 3; still-born, 10.

THE

Pacific Medical and Surgical Journal.

SELECTIONS.

Selections from Braithwaite.

GOUT.—Some cases of gout arise from a *rapid* accumulation of lithic acid in the blood; the general health is good, the patient florid, and there are symptoms of high fever, and acute local inflammations. The second class of cases (atonic or chronic gout) are slow in their origin and progress; the general health is indifferent, the patients are of pallid complexion and lax fibre, there is an absence of severe febrile disturbance, and the local inflammatory action is less acute. The first or acute may be called gout arising from excessive formation of uric acid, and the second or chronic case gout from defective secretion of uric acid. In the cases of *acute gout* in otherwise healthy persons—cases engendered by the excessive formation of uric acid in the system, as a consequence of an over-abundant and over stimulating diet, deficient exercise, and an undue amount of sleep—little more is needed than to alter the habits of life, and to administer such medicines as may be requisite to induce a full action of the excretory organs. The cause of the accumulation of uric acid is thus arrested. In a remedial point of view, the most important thing is to produce full action of the excretory organs; for this purpose a hot air bath and such a pill as the following may be given every night; two grains of the acetic extract of colchicum, three grains of calomel, and one grain of the watery extract of aloes. In the case of *chronic gout*, the whole history points to defective excretion. There is no history of overloading the system, and no evidence of an excessively rapid formation of lithic acid in the blood. From the state of constitution in these cases large quantities of colchicum and alkalies are inadmissible, and hot air baths would produce exhaustion. Warm baths containing soda are, however, useful. Alkalies may be given in small quantities. The diet should be fish and beef-tea, if there are many sub-acute gouty symptoms present. The following is a good prescription: Carbonate of magnesia and sulphate of magnesia, of each one scruple; solution of taraxacum, one drachm; colchicum-wine, twelve minims; compound infusion of gentian, ten drachms: to be taken every six hours. A gouty man needs all the nervous power he can command, to enable his various organs to do their work efficiently; and if he sits down to dinner in a state of exhaustion, his functions cannot but be imperfectly performed. A weakly man cannot be too cautious not to over-tax his strength, and so to impair his power of digestion. If, by force of circumstances, he is compelled to sit down to dinner, unduly exhausted, he should commence with a glass of sherry or some slight stimulant, and should be more than ordinarily abstemious. If the patient habitually passes his time in impure town-air. as is generally the case, and takes deficient exercise, a change of habit in these particulars must be imperatively insisted on. (Dr. Fuller, *Lancet*, December 13, 1863, page 641.)

HYDROPHOBIA.—*Electricity*—A patient suffering from hydrophobia, and so far advanced in the disease as to have become entirely unmanageable. was secured and bound to a mattress, and a copper-wire being wound around both feet, the conductor of the negative pole was attached to this wire; and the conductor of the positive pole, through a sponge saturated with vinegar and salt, was applied to the throat and over the spine and body generally, with the full power of the battery. This caused instantaneous cessation of the spasms, and while under the influence of electricity the patient willingly drank liquids, and was free from the usual horror of them. The current was continued for some hours, with intervals of omission; the patient began to collapse, then vomiting and purging freely followed, and finally he fell asleep, and recovery ensued. This case, which occurred in New York, under the care of Dr. Lassing, seems extraordinary, and we should be glad to hear of a repetition of the experiment in England. (Dr. H. Lassing, page 50.)

SCARLET FEVER.—*Chlorine Mixture*—The following formula for the chlorine mixture, so useful in scarlet fever cases, is worth noting:- ℞. Potassæ chloratis ʒ ij; acidi hydrochlorici ℥ ij; aquæ distillatæ ℥ vj. Ut fiant ℥ viij, misce et solve. Dose, for an adult, ♏xv. The extempore prescription for the mixture would then be:—℞. Liquor chlorinii ʒ ij; aquæ ad ℥ viij. Misce. Dose, for an adult, ℥ j every three hours; for children. from ʒ j to ℥ ss. (Mr. W. W. Morris, *British Medical Journal*, Dec 6, 1862, p. 600.)

NÆVUS.—*Tartar Emetic*—Make a plaster of from sixteen to eighteen grains of tartar emetic, and one drachm of diachylon, and spread a considerable portion of this all over, and somewhat beyond the nævus, by means of the back of a strong knife, and keep it *in situ* by means of gummed paper. On the fifth or sixth day, the entire surface of the nævus begins to suppurate, a crust gradually forming, which passes off in about fifteen days, leaving a small cicatrix. (Dr. Zeissl, page 132.)

Nævus of the Eyelid.—The following is an excellent plan of treating this affection. Having put the child well under the influence of chloroform, heat a needle to dull redness in the flame of a spirit-lamp, and puncture through and through the entire substance of the lid a considerable number of times, the needle being heated as often as necessary during the operation. The needle should be set in a handle, and should have a bulb about one-third of an inch from its point to serve as a reservoir for heat. Moreover, the eyelid should be raised from the globe by means of an ivory spoon, both to protect the eye and to form a firm basis for the lid. (Mr. J. C. Wordsworth, p. 132.)

RHEUMATIC PERICARDITIS.—Ordinarily, when under appropriate treatment, friction-sounds do not cease, owing to the unorganized state of the effused lymph, the cause is the feeble condition of the patient; and this state of exhaustion of the system is usually the origin of the untoward symptoms by which death in pericarditis is preceded. Hence the necessity of supporting treatment in all cases in which there is feebleness of system. Beef-tea and cinchona seem strange remedies for a case of acute local inflammation, but they are sometimes necessary. "None of the functions of the body, and none of the actions which are necessary to the reparation of the tissues, can go on properly in a person enfeebled beyond a certain point." (Dr. Fuller, p. 73.)

SEVERE EPISTAXIS.—*Plugging the Nose*—Pass a piece of dry and compressed sponge, about two inches long, and of sufficient size to pass easily along the floor of the nares. Secure this in the middle by a piece of tape or twine doubled, when the sponge is fairly pushed by a probe or female catheter through the posterior nares, draw upon the tape, the sponge then takes a direction transverse to the nasal cavity, doubling upon itself, and so blocking up, when swelled by the absorption of blood, the posterior nares. The two ends of the tape now passing out of the nostril should be separated, the anterior cavity filled with cotton wool, and the tape then tied across the whole in front of the nose. To remove it, push the sponge into the pharynx, and bring it out through the mouth. This plan is only necessary in very severe cases of epistaxis, and is attended with less distress to the patient and inconvenience to the operator, than the usual plan. (Dr. Cahill, p. 134.)

CHOLERA.—*Subcutaneous Injection of Morphia*—Opium seems of undoubted benefit in cholera, but is so generally rejected immediately from either the stomach or rectum that its full effects cannot easily be obtained. If, however, it is injected beneath the skin, its action will be found to be prompt and efficient, relieving at once the violent abdominal cramps and muscular action of stomach and rectum. ♏xv. of liq. morp. acet. may be injected with a Wood's syringe, beneath the skin of the abdomen. (Dr. I. Ash, p. 92.)

FEMORAL HERNIA.—In endeavoring to reduce a hernia I never hesitate to give chloroform, as the immense use which it has proved itself to be, quite overbalances the chance of occurrence of considerable chloroform sickness. In three cases out of four at least the taxis will fail, that is in femoral hernia; it ought not to be prolonged beyond a few minutes, and on no account must force be employed. If you then fail, you must make up your mind to operate, and to do so at once. Opening or not opening the sac is quite a matter of secondary importance compared with the period of strangulation, and the more or less forcible taxis. I invariably open the sac, and have never seen any harm arise from this procedure, and if this is not done. in some cases the surgeon cannot be quite sure that a bit af bowel is not left in the sac. (Mr. Prescott Hewett, p. 134.)

Inversion of the Patient.—The taxis and every other means of reducing hernia failing, procure a board of five or six feet in length, and place and fix the patient by straps with his knees flexed over one end of the board. Then invert completely, or nearly so. The tumor will in many cases disappear spontaneously, and in very few will it refuse to return by a little manipulation. The explanation is the traction on the tumor exercised by the weight of the intestines, which of course gravitate from the tumor. (Anonymous, p. 136.)

PROLAPSUS ANO.—*Nitric Acid*—In those old cases of prolapsus of the rectum in which the sphincter ani is completely relaxed, exercising no constriction whatever on the protrusion, and in which the surrounding skin is relaxed and superabundant, and thrown into numerous large folds, there is perhaps no better plan of treatment than the application of nitric acid. It may be applied to half the protrusion at a time, and the folds of integument removed with scissors. (Mr. C. J. Holthouse, p. 137.)

LIGATURES.—*The Wire Compress, a Substitute for the Ligature*—The wire compress is a modification of the method of arresting hemorrhage, devised by Dr. Simpson, of Edinburgh, and named by him "Acupressure," and is thought to possess the advantages without the disadvantages of that proceeding. The wire is thus applied: Take a piece of surgical wire six or eight inches long, and thread each end thereof upon a straight needle. Seize the bleeding mouth of the artery with forceps, and pass one of the needles close on each side of the artery just mentioned, about a line above the points of the forceps, directly down through the substance of the flaps, so that they emerge at the cuticular surface, about half an inch distant from each other. Draw them both through together till the curve of the wire compresses the artery on the face of the flap. Now get rid of the needles by clipping through the wire close above their eyes, and also detach the artery forceps. Place a piece of cork, cut for the occasion, upon the skin, between the points of exit of the wire, and over this twist the wire tighter and tighter until the bleeding is arrested. Lastly, cut off the superfluous wire. All which is done quicker than described. Two or more arteries lying near together may be embraced by one wire, and, as has been said, the veins may be included or excluded at will. The finest and softest passive iron wire is equally as suitable as silver wire. The needle are about three inches in length, straight, and three-edged, with an eye adapted for carrying wire. The wire must be carefully kept from twisting. To withdraw the wire, clip it close to the edge of the piece of cork, and straighten out the curve it has formed at its exit from the skin. Remove the cork, and apply instead the tip of one finger, with which press firmly upon the flap, making traction gently and gradually upon the other end of the wire. For small vessels a few hours of compression is sufficient, and for the largest arteries a much less time than might be supposed. The best plan is to remove the wires from the secondary branches in from twenty-four to forty-eight hours, and from the largest arteries a much less time than might be supposed. The best plan is to remove the wires from the secondary branches in from twenty-four to forty-eight hours, and from the largest arteries in four days. (Mr. J. Dix, p. 119.)

"This compress has not the slightest advantage over the ligature." The ligature is "one of the grandest things in surgery." The tracks of the ligature act as vents for the discharge of pus, and as regards their preventing healing by the first intention, the advantages of this kind of union are much overrated. (Prof. Fergusson, p. 121.)

Silver-Wire Ligatures—The effect of a silver-wire ligature upon an artery is precisely identical with that of an ordinary silk ligature. But there is one material advantage in a silver-wire ligature over a silken one, and this consists in the capability of silver-wire to remain in tissues nearly if not quite innocuously. Thus the ligature does not of itself constitute a focus for purulent secrétion, permeating tissues which we are endeavoring to unite by immediate adhesion, and these tissues temporarily weakened by the supply of blood being diminished. A silver-wire ligature, which I inserted four years years ago in the soft palate of a girl remains, and she will not allow its removal, as she feels no inconvenience from it. (Mr. R. Davies, p. 123.)

BURNS.—A most excellent application is a paste compound of common whiting, olive oil, and vinegar. This should be spread on strips of rag. It produces a marked sedative effect, no doubt owing to the escaping carbonic acid set free by the vinegar. (p. 161.)

ELEPHANTIASIS OF THE LEG.—The best and perhaps only successful plan of treatment is by cutting off the main arterial supply of blood to the limb, by tying the femoral artery at the apex of Scarpa's triangle. In some cases it will suffice to tie the popliteal, and this should be preferred if the case admits of it. (Dr. Carnocan, Mr. R. Davies, p. 123.)

RINGWORM.—Take two drachms of pure iodine, and rub down with it, in one ounce and a half of spirits of wine, as much of the pure hydriodate of potash as will dissolve it. Paint the parts affected with this by means of a camel-hair pencil every two hours until they have become quite black, extending the application one quarter of an inch over the edge of the affected parts. The skin comes off in large flakes. Continue the application until a perfectly new skin is formed. (Dr. A. Lane, p. 157.)

ALBUMINURIA.—*Arsenic*—A case of albuminuria is related in which all other remedies being unsuccessful, Fowler's solution of arsenic was given "with the most marked and decided advantage" The patient "began to improve in less than a week, his spirits began to return, his appetite to improve, and the albumen to disappear from the urine." On omitting the arsenic the albumen reappeared, but the case was ultimately cured under its use. We suppose its effect must be ascribed to the wonderful tonic properties of arsenic in some cases attended by a nervous exhaustion and muscular atony —the cure of the local affection resulting from the cure of the abnormal constitutional state. (Mr. J. Wearne, p. 101.)

DIABETES.—Do not suppose that every case in which there is saccharine urine, is a case of diabetes in the ordinary acceptation of the term, to be treated on an uniform plan dietetically and medicinally. It is now pretty well determined that mental irritation by its action on the brain may give rise to saccharine urine, and such cases must be treated on a broader view than would suggest itself by regarding them simply as cases of ordinary diabetes. Should such a case occur to you, pay little attention to the urine, and advise detachment from harassing occupation and thoughts, change of air and recreative amusement, with such diet as is best calculated to restore the integrity of the digestive functions. This is the only rational and successful plan of treating such cases. (Dr. D. Noble, p. 93.)

IRRITATION OF THE BLADDER —*Triticum Repens*—In cases of constant and severe irritation of the bladder from any cause, an infusion of the underground stem of the *Triticum Repens* (dog's grass or couch grass) is an agent of much use. It is of much value in cases of renal calculus. It lessens frequency and pain of micturition, affording relief when buchu, pareira, uva ursi, and other infusions fail. An ounce should be infused in a pint of boiling water for an hour, and the strained liquid should be taken when cool, during a period of twenty-four hours. It may be used as a vehicle for other agents. It is somewhat diuretic, and perhaps slightly aperient. (Mr. H. Thompson, p. 102.)

STRICTURE OF THE URETHRA.—*Treatment by Gradual Distension.*—It is well known that when any fibrous structure is *over*-distended, its tendency to contract is destroyed. This happens in the case of both healthy and morbid fibrous tissues, Now, if a stricture of the urethra can be over distended, we have a means of ensuring its non-recontraction. This has been accomplished by Mr. Henry Thompson. The instrument used by him consists of two long and narrow steel rods, accurately applied throughout their entire length by the single plane surface which each possesses. These rods are united at both extremities, and are surmounted by a handle resembling that of an ordinary sound. This handle is attached to a screw with a very fine thread, which being turned, causes the two rods to diverge very slowly and very gradually from each other, at a given spot, about six inches from the handle, and the object in the use of the instrument is to place this portion of its length in the stricture, which may then be dilated to any size desired, the rest of the urethra not being affected. After the removal of the instrument all that remains to be done is, to pass a full-sized metallic instrument every second day for a week, and after that at increased intervals for a week. (Mr. H. Thompson, p. 147.)

Immediate Treatment – Smyly's Dilator.—Dr. Smyly, of the Meath Hospital, has invented an instrument for the "immediate" treatment of stricture of the urethra essentially similar to Mr. Barnard Holt's, but differing in this, that a guide of silver wire, having upon it a No. 1 catheter is first passed; the catheter (which is perforated at the point) is then withdrawn, and a dilator similar to Mr. Holt's is then passed, and the stricture forcibly expanded. The chief advantage of this plan is, that it is not necessary to pass first a dilator equal to a No. 3 or No. 4 catheter without any guide whatever—a thing difficult to accomplish and sometimes dangerous to attempt. (Dr. P. C. Smyly, p. 145.)

GONORRHŒAL OPHTHALMIA.—This formidable affection yields with marvellous rapidity to repeated weak injections. In the most acute cases a solution of a quarter of a grain of nitrate of silver to the ounce of distilled water should be injected beneath the upper lid, with a syringe, every ten minutes for the first hour; after that, a half grain solution should be injected every half-hour. If this is carefully carried out for the first twenty-four hours, the patient's eye will be quite safe. A stronger solution may then be used, but less frequently, and in a couple of days, if the villous condition of the conjunctiva should seem to require it, Guthrie's ointment of nitrate of silver may be used. These weak solutions are quite useless unless very frequently applied; but if so used, scarcely an eye need be lost from gonorrhœal ophthalmia. (Dr. M. H. Collins, p. 183.)

SCLEROTITIS AND IRITIS.—The plan of internal administration of morphia in acute cases of sclerotitis and iritis, continues to be as successfully pursued as heretofore. At the commencement of a case, doses of a quarter of a grain should be given, cautiously increased to one-third or even half a grain, but in some young or feeble subjects it is well to begin with one-fifth of a grain. The patient should be directed to take one dose every third hour; but on the pain becoming less, to increase the interval of the doses to four or five hours, or even to leave off the medicine altogether. The degree of pain should be the guide as to the length of interval. A mercurial purge and tonics may be required at the termination of the case. In a few cases morphia causes violent symptoms of stomach derangement and depression; in others it produes these effects but in a slight degree; in such cases the drug is inadmissible, except in very small doses. Where there is iritis, belladonna should be applied locally. The important practical fact seems established, that morphia is, *per se*, a powerful antiphlogistic, capable of curing those acute inflammations of the eye in which up to the present time, blood-letting, blistering, and mercurialisation have been considered necessary. The explanation of this remarkable action of morphia in reducing abnormal fullness of the vessels of the sclerotic, we may find in the relations of pain to vascular congestion. It is generally considered that the pain is the effect of congestion, but it is quite an open question whether, in certain classes of cases, the order of things may not be reversed. (Dr. J. Z. Lawrence, p. 175.)

TRICHIASIS.—By trichiasis is meant an alteration in the growth of one or more of the eyelashes, in such a way and to such an extent that the surface of the eyeball is swept over. Sometimes a single fine hair grows in and sweeps the globe, sometimes an extra row of strong well-marked lashes grow from the inner edge of the tarsus direct upon the eye. Where there are only one or two hairs they are easily overlooked. The palliative treatment of these cases consists in simply pulling out the precant lash or lashes. For this purpose a particular form of broad-pointed forceps very carefully made is required. In slight cases it is as well to rest satisfied with this simple and mild treatment, as there is so much difficulty in effecting a radical cure.

Various means have been suggested for effecting a radical cure, but they all occasionally fail, and none are suited to all cases. It has been recommended to remove the lashes and insert a fine cautery into the hair follicle, but when the hair is removed, unfortunately no aperture can be discovered into which it can be introduced. Dissecting lashes out is extremely difficult, and very liable to alter the growth of others. If the patient is bent upon having something tried, the removal of a small triangular piece of the entire lid, involving the part from which the inverted lash grows, is upon the whole the least objectionable plan. The divided parts may be accurately adjusted without any subsequent deformity. Where the inward tendency is only just sufficient to permit the ends of the hairs to touch the eye, a new cicatrix may be formed by removing a portion of the subcutaneous tissue and muscle, close to the roots of the eyelashes, so that by the contraction of the cicatrix the direction of their growth may be changed. Very severe cases must be treated as cases of entropium. (Mr. G. Critchett, p. 179.)

LACERATION OF PERINEUM IN FORCEPS CASES—*Prevention of.*—The adoption of the following plan in forceps cases obviates all danger of lacerating the perineum. When the forceps have been applied, and the head of the child has been brought down sufficiently low on the perineum that the forefinger of the accoucheur introduced into the rectum can reach, for instance, in occipito-anterior presentations, beyond the frontal eminence, the instrument should be withdrawn, or, if that be not convenient, all traction should be discontinued, and the finger, still retained in the rectum, should be used after the manner of the vectis, pressure being made with it, first on the space between the frontal eminences and the roots of the nose, and afterwards on the upper jaw, and perhaps, if necessary, on the chin, as these parts successively come within reach. By this means the head is made to rotate in the axis of the outlet, and, being directed forwards under the pubes, its pressure on the perineum is greatly relieved. (Dr. C. Ricketts, p. 195.)

An Account of an Attempt to Restore to its Natural Appearance a Putrefied Dead Body, in Order to Prove its Identity.

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ON Saturday, the 9th May, 1863, I concluded an inquiry to ascertain if a human body that had undergone putrefactive change to such a degree that it was unrecognizable, could be so far restored to the appearance of life as to be sworn upon in respect to its identity.

As the inquiry in question, from the circumstances by which it was surrounded, has created great public interest, as it opens a new line of research in regard to a medico-legal question of a very important natur , a-d as certain imperfect impressions are afloat concerning it, I take the opportunity of laying the exact scientific facts before the profession at the earliest possible moment.

To make every point clear to provincial and foreign brethren, let me state the simple narrative of the facts in the first place. Some weeks ago a woman named Emma Jackson was murdered in St. Giles's, by having her throat cut in a house of ill-fame, to which she had retired with a man who had been seen by at least three persons, and whose appearance was clearly defined by them. This man, by some strange and almost inexplicable method, made his escape from the house without being seen to depart, and has not since been detected. Several persons have, however, been suspected, and one or two have been temporarily detained, but on examination they have been discharged.

On May 4th, 1863, a man was dragged dead from the Thames, who in many respects seemed to answer to the description given of the assumed murderer. On the following Wednesday, Mr. Humphreys, the coroner for East Middlesex, held an inquest on the body of this man, but decomposition had advanced so far that none of the witnesses could arrive at any conclusion whatever respecting the body; it was, in fact, utterly unrecognizable. This statement having been made in the public papers, on Thursday morning, I formed an opinion, derived from some researches on dead tissues, that it might be possible to alter the appearance of the body so much as to enable the witnesses to speak as to its identity. In the afternoon of Thursday last, I met, accidentally, Dr. Lankester, who had held an inquest over Emma Jackson, and I explained to him my views. He urged me very strongly to communicate with Mr. Humphreys. I did so, and by the aid of Dr. Edmunds, got on interview with Mr. Humphreys on Friday night. Having given him an outline of the plan I proposed to follow, he deputed me to carry out the attempt, and requested Dr. Edmunds to be present and take part in conducting the suggested process. We were to act at once, as the adjourned inquest was to be held on Saturday.

At half-past ten on Saturday, we were taken to the dead man, who was lying in a shell in the dead-house in Darby-street, Tower-hill. He was dressed as he was when taken out of the water. His body generally, with the exception of the hands, was deeply discolored, and the face was so changed that it was impossible to form any opinion respecting either its color or feature; it was as black as the face of the darkest negro, and had it not been white when it was taken out of the water, I should say that the man would have been returned as a negro. The lips were enormously distended, and the nose scarcely visible; the cheeks and eyelids were also greatly distended. In fact, the putrefactive changes were so advanced that it required some little determination to proceed. Following, nevertheless, the course I had marked out, we immersed the body in water, and then added to the water 20 pounds of common salt; we also added gradually, in the course of the operation, one pint of common hydrochloric acid; and the body was allowed to remain under this solution for two hours. The object of this part of the process was to reduce the swelling of the features by exosmosis. The shell, being water-tight, answered as a bath.

Meanwhile we charged a pail of water with fresh chlorine, and then, lifting the face out of the water in the shell, treated it with the chlorine water. I also directed a stream of chlorine gas for some time upon the face. The object of this part of the process was to restore the white color.

A little before one o'clock, both of the intentions we had in view were realized to a considerable degree. The tumefaction was relieved; and the face, from the deepest black, had become of the cast of light clay, common wood-ash, or the darker sort of straw paper. When the chlorine in vapor was passing over the face, the skin approached to white, but so soon as it was withdrawn the change to clay-like hue returned. So much was now accomplished that we were able to form a fair estimate of the man. We found that he was evidently a young man, not more probably than 21 years of age; he had a short, feeble moustache; his lower lip had a short, soft beard that had not been shaven, and his whiskers corresponded; his face was naturally round and full, and indeed his body generally was well nourished.

At one o'clock we left, and returned at two. We had arranged that a stream of chlorine should continue to play over the face in our absence, but, as we had no one to leave in charge, the gas became exhausted, and the face was a little darker when we returned.

Pursuing still the course I had pre-arranged, we opened the body. We found the viscera but little decomposed and natural; the heart was empty and flaccid; the lungs free from congestion. We fixed a large tube in the aorta, through the left ventricle; and Dr. Edmunds tied the aorta in the thorax, so as to prevent any passage of fluid to the lower part of the body, and to the abdominal viscera. Then we injected a solution, consisting of chlorine water, chloride of zinc, and a little sesquichloride of iron. The object in this instance was to impregnate the tissues from within with the decolorizing agent, and to reduce the tumefaction. On forcing the injection, we found that great escape took place through the vessels that had been divided in opening the thorax. We therefore withdrew the tube from the aorta, and as the face was the part chiefly requiring attention, Dr. Edmunds laid bare the common carotid on the right side, and a small nozzle from the syringe was introduced into that vessel and tied. It must be understood that much care was required in forcing the injection through structures so decomposed and yielding, and that we dare not push this part of the operation too far. Had we used much force, we should have produced extensive infiltration through the broken capillaries, and have destroyed the facial structures altogether. So soon, therefore, as the face was subjected to slight tension, the injection process was stopped. The time had now approached for the sitting of the jury at half-past 4, P. M. We allowed all the water to drain away, drenched the body with pure water, and left it with the face covered with a piece of thick cloth, on which was poured a little hydrochloric acid and methylated alcohol. The face at this time was of a clayey color, and a little more full than natural; and although we felt that we had not brought it up to its perfect natural appearance, we believed that it might be recognizable by any one who had seen it during life, and especially that it was a face which a witness could swear was not that of any particular person whom he remembered, if there were not strong natural resemblances between the two.

The result indicated that we had effected even more than we had anticipated, and that, if we had not succeeded to the perfection we could have wished, we had fulfilled the practical part of our mission and all that was demanded of us; for the three witnesses who were there either to confirm or disprove the hypothesis that the man before them was the man last seen with the murdered woman, each and all swore without hesitation, on their second view of the unknown man, that he was *not* the assumed murderer.

Margaret Curley, of 4, George street, St. Giles's, swore that she had examined the deceased since the operation had been performed, but that she did not recognize him as a person she had seen before, nor as the person suspected; Chas. Ansley, of 20, Peter street, bore the same testimony; and H. Stoke, the shoe-man, swore definitely that, from his inspection of the deceased since the operation, he was sure that he was not the man whom he had seen with Emma Jackson. The Coroner, in summing up, observed that the experiments made having enabled the witnesses to swear that the deceased man was not the man accused of the murder, they had fulfilled their purpose, and the jury returned a verdict in accordance with the evidence.

Reflections and Suggestions.—The fact that in a case so extreme as the one named, science has come in to render essential aid to justice, affords, I hope, subject for thought and renewed effort in the same direction. I am far from considering that we ought to stop where we have thus begun. I look upon this case, in fact, as a mere first and experimental trial, which, followed up, will lead to great perfection in one department of medical jurisprudence; and I feel, consequently, that I cannot conclude this paper better than by pointing out what improvements in the process have been suggested to me by the experience detailed above.

1. In respect to time. On another occasion I would ask to be allowed at least twenty-four hours for the performance of the process. The period of six hours was insufficient for the full development of the required changes.

2. I should proceed by stripping the subject of all apparel.

3. After this the subject should be placed in a water-tight shell, in which a large tap for escape of water should be inserted, and the body should be thoroughly washed with water.

4. After the washing, the body should be covered with water, and held beneath it by a few cross bars of wood. Then the lid of the shell should be temporarily but effectually closed down, and two openings should be made into the lid; through one of these openings the free end of a tube, connected with a chlorine flask, should be passed beneath the surface of the water; while from the other opening should come another tube, the free end of which should turn over into a glass globe of water. These preliminaries arranged, fresh chlorine should be driven in until the water within is saturated by it, the fact of saturation being determined by the passage of chlorine through the escape tube. When the water around the body should thus become charged with chlorine, the openings in the lid of the shell should be closed, and the whole should be left undisturbed for twelve hours.

5. On opening the lid after the interval of time named, common salt should be added to the water, until the hydrometer should stand several degrees above the specific gravity of the blood; the specific gravity of 1100 would answer for the solution. In this solution the body should remain immersed for twelve hours; the water should then be drawn off and the body examined.

[If there were no deep decomposition and discoloration, the body, I believe, would now be ready for identification; but if the putrefaction were very deep-seated, it would be requisite to proceed further.]

6. If necessary, open the trunk of the body at this point, and make any post-mortem observations that may be required. The head should not be opened at this stage.

7. After the post-mortem examination, in order to restore a more natural expression to the face, solutions should be injected into the external carotid of each side. The form of solutions I should suggest in another case would be—

(*a*) Water saturated with chlorine, and charged, in addition, with tincture of the sesquichloride of iron in the proportion of two fluid drachms to the pint.

(*b*) Common fresh milk saturated with common salt.

Of injection *a*, I would recommend that from two to three ounces should be slowly injected on each side, to be followed, without removing the nozzle of the syringe from the vessel, by so much of solution *b* as should cause the slightest possible tension on the tissues of the face.

Lastly, if it were requisite to retain the body for some time, it would be advisable to cover it with wood spirit, containing one drachm to the gallon of the tincture of the sesquichloride of iron, and to exclude it from the air.

In offering these suggestions, I beg that they may be accepted as open to revision; the principle recognized, the details are certain, under experiment, to be simplified and improved.

In conclusion, I have to offer my warmest thanks to Dr. Edmunds for the energetic, friendly, and able part which he took in the very interesting inquiry to which I have called attention. His exertions contributed in a most important manner to the results obtained.—*London Lancet.*

On the Diagnostic Value of an Accentuated Cardiac Second Sound.

BY J. WARBURTON BEGBIE, M. D.,
Physician to the Royal Infirmary.

It is now universally admitted that the second sound of the heart is produced during the act of closure of the semilunar valves in the orifices of the aorta and pulmonary artery. The sudden tension of the membranous structure of which these valves are composed is a sufficient, possibly the *only*, cause of the sound. It is, however, probable that, as generally held, the recoil of the blood against the valves contributes to its production.

Careful clinical observation has materially aided the direct experiments which, at a former period, were made regarding the heart's sounds. As respects the second sound, it may indeed be concluded that, by the former means of research, much left unfulfilled by the latter has been supplied. For example, I may refer to one or two particulars of importance, which have a special bearing on the subject of this paper. When the second sound is entirely replaced over the base of the heart by a murmur, it is not audible over the ventricles, and is not to be detected at the apex of that organ. In other words, when the murmur of aortic regurgitation is so loud as to drown all normal second sound, preventing, by its very loudness, the recognition of the pulmonary second sound over the pulmonary valves, or in their immediate neighborhood, where the second sound originating there is most readily heard, it cannot be detected even in small part over any other portion of the heart. Here, however, there are some points worthy of special observation; they concern what may be called exceptional cases of aortic insufficiency. A diastolic murmur may largely obscure, but not obliterate, the second sound over the aortic valves, a portion of it remains; and in such cases, the pulmonary second sound being either readily appreciable or at least audible, the murmur diminishing in loudness as the stethoscope is placed over the ventricles, the normal second sound, pulmonary in origin, or the portion of aortic second sound which remains, is with greater readiness discovered there, or even at the left apex, than at the base. In endeavoring to account for this circumstance, it must be held in remembrance that the murmur of aortic regurgitation is not conducted with anything like the same distinctness over the ventricles as it is down the course of the sternum to the very limit, in some instances, of the ensiform cartilage itself. I have found not unfrequently that the second sound, greatly obscured by murmur at the base, and having precisely the same character at the end of the sternum, has been partially unclouded at the left apex, and over the ventricles a little less so. In such instances, it has not been difficult to determine that the more ready recognition of the sound in the latter situations has been due to the loss in distinctness sustained by the murmur.

Dr. Walshe has noticed a "distinct sound at the left apex in more than one case, while at the aortic base the ordinary regurgitant murmur alone existed."* So also in cases in which the second sound at the base is only feebly heard—no murmur existing—there may be, if not a loud, at all events a more readily recognized second sound near or at the apex. To such instances Skoda has directed attention, and they have likewise been fully considered by Dr. Walshe. In explanation of their occurrence it may be, as

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* Diseases of the Heart, 3d edition, page 65.

Skoda has suggested, and Dr. Walshe is disposed to allow, that some of the phenomena occurring during the diastolic action of the ventricles, which are properly, or rather naturally, soundless, become attended by sound—in other words, produce a second sound of their own; or it is equally conceivable—although perhaps not fully established—that certain diseased states in existence may determine a sound bearing a resemblance, more or less exact, to the normal diastolic sound of the heart.

These few observations I have made by way of preface to the statement of great practical value which I now wish to consider—That an accentuated condition of the heart's second sound is heard in connection with one or other of two conditions of disease—aneurism of the aorta, or dilatation of the aorta. It is hardly necessary to say, that no account is taken here of the by no means uncommon phenomenon of an accentuated pulmonary second sound. All careful auscultators know how much value that phenomenon is in relation to the condition of mitral valve constriction. In describing the heart's second sound as accentuated in the instances of aortic aneurism and aortic dilatation upon which the present observations are based, it is perhaps necessary to explain that the expressions, intensified, or greatly pronounced, would equally well indicate the character of the sound which has been found to exist. When occurring under the circumstances referred to, the accentuation of the second sound is always well marked. I have frequently observed that early ausculators have, unaided, noticed the peculiarity, while very rarely indeed has there been any difficulty attending its recognition by such, when their attention has been called to the subject. In a case of aortic aneurism under my care last summer, there existed so accentuated a second sound over the base of the heart as to arrest the notice of all who examined the patient by auscultation. Several students, merely tyros in the art, readily recognized the *booming* character of the sound.

When the accentuated second sound occurs in connection with aortic aneurism or aortic dilatation, it may be presumed that the semilunar valves are competent. Their insufficiency and the occurrence of an accentuated second sound are inconsistent; if the former lesion be in existence, a diastolic murmur is the necessary result. The influence of valvular disease in the production of murmurs in cases of aortic aneurism is a point of the greatest importance for consideration. There may be, of course, associated mitral valve disease, or tricuspid disease, and, if so, murmurs may be thus originated; but such association is to be regarded rather in the light of an accidental coincidence, and not by any means of the same importance as the occurrence of disease of the aortic valves. Judging from cases of aneurism which have come under my own observation in hospital, I conclude that it is very common to find aortic valve insufficiency in connection with aortic aneurism; while in such cases the diastolic murmur, usually a very loud or at least a very distinct one, so characteristic of the former lesion, is the most prominent auscultatory phenomenon. The cases now referred to are very evidently not cases of valvular disease in the first instance, and subsequently of aneurism; in none has there been any foregoing attack of rheumatism, in none any distinct rheumatic history. Neither are they examples of a mere accidental association. The relation of the valvular imperfection to the aneurism is, I believe, of the greatest interest and importance, and in all, its occurrence has been subsequent to the disease of the vessel. If an aortic aneurism attain to any considerable dimensions, and affect the ascending portion of the arch, the aortic valves are rendered incompetent; and being so, we shall find the auscultatory phenomenon connected with the latter lesion in existence, and likewise the other physical signs which afford such evidence, especially the well-known peculiarities in the pulses, as pointed out by Dr. Corrigan and Dr. Henderson. I never remember to have seen an instance of aneurism of the aortic arch within the pericardium of any considerable size unattended by diastolic murmur—the diastolic murmur of aortic valve insufficiency. On the other hand, the prominent physical signs of aortic insufficiency have led me—and no doubt the same error has been committed by others—to overlook the existence of aneurism altogether. Dr. Haldane has in his possession a preparation of a large aortic aneurism, removed from a patient who had been under my own observation, as well as at different times under the care of three hospital physicians. In this case the signs of insufficiency of the semilunar valves were of unusual distinctness, and so, during the patient's life, the existence of that lesion was recognized, while the aneurism escaped detection till after death. The fatal event occurred suddenly, not from rupture of the aneurism, but after the mode in which a very sudden termination not unfrequently takes place in cases of aortic insufficiency. With these facts before us, how necessary is it to make a careful use of the other means of diagnosis, in addition to auscultation, which we possess.

There is no diseased condition within the chest which gives rise to so many and different auscultatory signs as aneurism. I have no intention at present of making any detailed reference to these. My remarks will be limited now to one peculiarity—the *accentuated* second sound. Here I purposely avoid making any mention of the systolic cardiac sound. Of course, in all cases, it is of importance to determine its true state, whether pure, or itself accentuated, or attended by murmur; any of these it may be, while the accentuated character of the second sound prevails. Now, as the result of careful observation and continued attention, I have found that, excluding the accentuated pulmonary second sound, and the intensified aortic second sound in some cases of hypertrophy and dilatation of the left ventricle, the accentuated second sound in the aorta is an indication of aortic aneurism, or of dilatation of the aorta associated with atheromatous degeneration. If it be the former, the aneurism probably does not arise within the pericardium, and probably does not affect the ascending portion of the arch, but has, most likely, its seat in the transverse portion; it may, however, arise at an earlier part of the aorta, as was found in the following case:—

Aneurism of the Aorta, pointing externally, bursting through the Lung into the Left Pleura.—S. M., æt. 36, under my care in the Infirmary, Ward V., during August and September, 1862. Between the second and third left ribs, near the cartilages, a pulsating tumor was detected on the patient's admission. On auscultation a soft bruit was audible over the tumor; and at the base of the heart, as well as over the upper bone of the sternum, a very loud ringing second sound. The latter phenomenon never varied during the patient's six weeks' residence in the hospital. He died suddenly, after expectorating a little blood. On examination of the body after death, serous fluid and coagulated blood, to the amount of more than half a gallon, were found in the cavity of the left pleura; the heart was pushed downwards and backwards; it weighed fourteen ounces. *The valves were perfectly healthy.* An aneurism was found commencing abruptly an inch and a half above the semilunar valves—the whole vessel suddenly dilating to a point immediately beyond the origin of the left carotid, where the dilatation as suddenly ceased. The pouch so formed was six inches in length; it passed behind and was applied to the back of the manubrium sterni and made its appearance externally between the second and third left ribs. The left extremity of the sac was intimately united to the left lung, the edge of which had become thinned by pressure, and the pleura having then given way, allowed the escape of the aneurismal contents into the pleural sac.*

In the foregoing case, the peculiarity of the second sound was of comparatively little value in leading to the recognition of the aneurism, other and still more distinctive signs, especially the visible pulsating tumor, of that condition being in existence; but the accentuated sound led to the diagnosis of the competency of the semilunar valves, which post-mortem examination confirmed. In the following case the accentuated second sound was the earliest noted reliable sign of aortic aneurism:

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* The post-mortem examination was performed by Dr. Haldane, at that time Pathologist to the Royal Infirmary, and the account given above has been abbreviated from his record of dissections.

W. M'A., æt. 35, a hawker, was first seen by me in March, 1862, complaining of slight chest symptoms, particularly cough and expectoration of a little phlegm. He had not been a sober man.

Condition on first examination.—Has a slight bronchitic affection. Heart's second sound markedly accentuated over the aortic valves. No other auscultatory phenomenon connected with heart or great vessels.

I had frequent opportunities of seeing and examining this man up to November 6th, when he entered the Infirmary, becoming a patient in Ward IV. During this time his general health had failed considerably; he had become thinner, feebler, less able for his occupation, though still moving about and doing something as a traveler.

On 6th November the following notes of his condition were made: Has been suffering from dyspnœa, which has seized him on a few occasions suddenly, and without any previous effort or exertion having been made. Cough is somewhat clanging in character. Has some pain and peculiar sense of weight in region of sternum. Over the left portion of manubrium there is visible pulsation. Left radial pulse is feebler than right. Murmur of soft blowing character accompanies first sound over the seat of pulsation, and is heard less distinctly over the base of heart. The second sound at base is of a loud *booming* character. Respiratory sounds in upper part of left lung, feeble. Posteriorly there is a little bronchial stridor.

This man, so far as I know, survives; he left the Infirmary about eight weeks since. With such signs as those detailed, the existence of aneurism becomes unquestionable; they have become gradually developed in succession to the accentuated second sound, the earliest noticed at all.

Of this kind I might furnish other examples; several are known to me, and the opportunity has occurred for directing the attention of students to these, in the ordinary course of clinical instruction.

I have further to remark, that a similar condition of the second cardiac sound may be caused by dilatation of the aorta, associated with more or less of atheromatous degeneration. To distinguish between the two—in other words, to know when the accentuated second sound is due to aneurism and when to dilatation of the aorta, is not always easy. Reliance is chiefly to be placed on the associated physical signs in the former case, more particularly prominence, pulsation, extended percussion dullness, and the signs of internal pressure. If atheromatous dilatation exist, and that is the special condition, independent of aneurism, which gives rise to the accentuated second sound, there will probably be more or less pulsation in jugular fossa, atheromatous condition of superficial pulses (radials, temporal arteries, &c.) noticeable, and probably the arcus senilis.

The following points appear to me to be of importance in endeavoring to explain the mechanism of an accentuated second sound, under the circumstances now considered:—

1. The condition of the vessel, both in cases of aneurism and of dilatation with atheromatous degeneration, being such as greatly to diminish, if not to destroy, the support given to the circulation by the artery, there results an increased recoil of blood on the closing or closed valves.

2. It is possible that a morbid condition of the valvular apparatus itself heightens or intensifies the sound. The valves are not incompetent, but in such cases they are sometimes found thickened, and even presenting a hard surface at parts.

3. Something may, I conceive, be due to the increased calibre of the vessel, in connection with the altered condition of its internal tunic, in causing the peculiarity of sound.

But in whatever way the phenomenon is to be correctly explained, there can be no doubt of its existence being entitled to very considerable value as a clinical fact. I have noticed that the accentuated second sound is most readily appreciable over the aortic valves in both conditions. In the cases of dilatation of the aorta it has, however, been more decided in character over the manubrium sterni than in aneurismal cases. I may add, that in the majority of cases observed by myself, in which the accentuated second sound has existed under the circumstances now detailed, the expression *booming* second sound, or second sound with *ringing boom*, has best described the acoustic character of the sound itself. I have known the booming sound to continue for many weeks, and in one remarkable case of aneurism lately observed, (Walker, in Ward V., and afterwards in Ward IV.,) for months, and thereafter become at first obscured, and ultimately entirely replaced by a loud diastolic murmur, telling plainly that the semilunar valves had become insufficient owing the extension of the disease towards the heart.—*Edin. Med. Jour., from the Boston Med. and Surg. Journal.*

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The Effects of Sulphuret of Carbon on Health.

THE symptoms caused by sulphuret of carbon are peculiarly severe, and the situation of the workers really most miserable. Few of the workers marry, as it is well known thut those who habitually work among these fumes rarely or never have children, and the malady is one which will only succumb to good air and rest, and total exclusion from the work-sheds. The head is much affected; and partial insanity is far from uncommon. The sight is troubled frequently. The taste is vitiated, so that most things appear to taste of sulphur. The hearing is likewise affected, and the digestive functions are sometimes strangely excited, though this latter symptom is less frequent than the others. Appetite is increased to the verge of gluttony, and nausea is almost invariable. The breathing and the circulation are injured, and most, if not all, of the secretive functions are disordered in a very alarming manner. In fact, the wretched people—we can give them no other name—who can work with this agent are miserable to themselves and the world; they live in pain and trouble of both body and mind, with no hope or expectation of cure so long as they continue at their particular occupation. As to the remedies to be taken for alleviation of these misfortunes, baths, good air, a few simple medicines, and a country life—of course necessitating total abstinence from the poisonous works—have been found most efficacious. The power and density of the fumes may be better appreciated, when we state that in many cases the sheds are merely roofs supported by poles, and open to every breeze or gale that blows. M. Delpech does not appear to propose any method for ameliorating the condition of the workpeople. He mentions that the injury is due entirely to sulphuret of carbon; not the chloride of sulphur; and says that phosphorus has had a beneficial effect in many cases of "depression." In fact, it would, we suppose, be almost impossible to do anything except abolish the process, and as this cannot be effected, it only remains for scientific men to discover some agent which will produce the same results in the arts, without any of the great and certain dangers of sulphuret of carbon. There are many minds at work on this project, but as yet no practical result has been secured.—*Chemical News, London, March, 1863, from Social Science Review.—Am. Journ. of Pharm.*

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

VIII. THE PNEUMATICS, EPISYNTHETICS, AND ECLECTICS.

HALF a century after the death of Themison, and about one hundred years before Galen, under the reigns of Nero and Domitian, and when the Methodic school was in the height of its reputation, Athenæus, a Cilician physician, who practiced in Rome, established a new medical system, in which he was supported by numerous physicians, who, having been educated in the different Dogmatic schools of Greece, had refused to join the Methodics.

In the discussions which had occurred between the Dogmatists and the Empirics, the hypotheses on which the systems of the former were based, had been too thoroughly exposed to be successfully readvocated in Rome in opposition to the predominant doctrines of Methodism. New dogmas, therefore—giving rise to fresh arguments and discussions, were deemed preferable.

Athenæus founded his theory on the agency of a certain principle—*pneuma*, by which the conditions of health or disease were determined. As his writings have not descended to us, it is impossible to give a full and satisfactory definition of the supposed substance or power which he termed "pneuma." However, his explanation of the pulse, according to Galen, leads us to infer that he considered it as an aerial substance susceptible of more or less expansion: "The pulse is nothing more than the natural and involuntary motion produced by the dilatation of the pneuma—this pueuma having in itself the power of motion, thus causing the heart and arteries to beat."

This was by no means a new theory. It may be traced to the early philosophers of Greece, who blending the study of physics and metaphysics, sought to penetrate the mysteries of mind and matter; and, as one of the results of their researches, enunciated this doctrine of the pneuma under various names.

Thus, according to Pythagoras, the whole universe was endowed with a vivifying fire; and a subtle spirit—ether, gave the power of motion to the animal, whose soul he divided into two parts; —one presiding over reason, which he placed in the brain; the other over the passions, in the heart.

Hippocrates designated the vital force under the name of "enormon."

Zeno, in his philosophic system promulgated the idea of a pneuma or spirit pervading all bodies,—in fact, the universe, as afterwards described in the following verses by Virgil:—

"Principio cœlum, ac terras, camposque linquentes,
Lucentemque globum lunæ Titaniaque astra
Spiritus intus alit; totamque, infusa per artus,
Mens agitat molem, et magno se corpore miscet."
Æn. lib. vi.

The Stoics attributed all sensation to this principle. They taught that there were eight parts of the soul;— the five senses, the generative faculty, the voice and reason. "They also said that that was the dominant part of the soul which was its most excellent part; in which the imagination and the desires were formed, and whence reason proceeded. And this place was in the heart."*

The theory of Plato was founded on the operation of an aerial or etherial cause, and Aristotle endeavored to explain the means by which it reached the heart—which was, according to him, the receptacle and great centre of the soul, and from which the element which gave it vitality—the pneuma—was distributed by the arteries through the whole system.

We may remember that Erasistratus gave new developments to this hypothesis, attaching, as he did, great importance to the operation of the pneuma.

Athenæus revived all the subtleties of his predecessors on this subject, and applying this doctrine to all physiological and pathological phenomena, he with them regarded the pneuma or spirit as a fifth element. Like the Stoics, he sustained that air, earth, water and fire were not strictly elements, and that this term was appropriate only to the qualities they imparted to the body, viz: cold, dryness, moisture and heat. These five elementary principles constituted the foundation of his system—the pneuma playing the principal part. The senses, all the functions of the human economy, as well as the four supposed great modifiers of the body, were under the exclusive control of this imaginary principle.

Such were the rudimentary elements to which the vitalism of our epoch may be traced. The "*enormon*" of Hippocrates, became the "*pneuma*" of Athenæus, which in turn was transferred by Paracelsus and Van-Helmont into the "*archæus*"—"an immaterial principle, existing in the seed prior to fecundation, and presiding over the development of the body and all organic phenomena." Again, the archæus of Van-Helmont after being purified, received from Stahl the beautiful appellation of "*anima*," and has, since then, under its present name—"*vitalism*," enlisted among its advocates some of the most brilliant minds of the nineteenth century.

The Pneumatics adopted the Aristotelian doctrine of the existence of germs in the system, and maintained that matter and form were separate modes of existence, not residing in the same individual body. Thus, according to Galen,† Athenæus pretended that the element of the embryo was contained in the menstrual discharge, and the form, in the semen of man. In women there was no semen, and consequently no form, in men no menses and no germs. He considered the ovaries (at that time called "the testicles of women") of no use, and like the mammillæ in men, they existed only for symmetry.

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* Diogenes Laertius. Lives of Philosophers, p. 318. Bohn's edition.

† De semine, lib. ii. Sprengel, op. cit. vol. 2, p. 72.

The works of the principal Pneumatics having been lost, it is impossible to point out the minute discrepancies which distinguished their speculative opinions from those of the other Dogmatists of antiquity. With them, medicine consisted entirely of subtle definitions and divisions. Attributing all diseases to the pneuma, and believing that the diastole and systole were produced by it, they, more than any other systematists, multiplied the varieties of the pulse, without regard to the true causes which occasioned its variations.

The system of the Pneumatics had but a short and by no means a brilliant reign. However, they seemed to have had great faith in their theory, for Galen informs us, in a dialogue between himself and a nonagenarian Pneumatic — "that they would rather have betrayed their country, than changed their opinions."*

Among the most celebrated disciples of Athenæus were Agathinus, Herodotus, Magnus and Archigenes,–who all modified more or less the doctrines of their master so as to include those taught by the Empirics and the Methodics. They were, therefore, called Episynthetics or Eclectics.

All that we know of Agathinus is that he endeavored to unite the speculations of his master with those of other systematists. He defined the pulse with great subtlety, recommended cold instead of warm baths, attributing to the latter all the accidents produced by weakness and exaltation of irritability, and determined at the same time, the exceptional circumstances in which he supposed they could be advantageous.

Archigenes of Apamea, in Syria, emigrated to Rome, where he practiced under Trajan and Hadrian, and acquired great celebrity among his contemporaries as a physician and surgeon. He is also regarded as the founder of the Episynthetic sect. He wrote numerous treatises on medical subjects which have not been transmitted to us, with the exception of a few fragments found in the works of Galen and Aetius. He displayed much accuracy on the subject of hemorrhages and ulcerations of the uterus, and invented an instrument to dilate the vagina, in order to open an abscess therein with the knife.† In his description of the operation of amputating, he began by retracting the integuments of the limb, and afterwards surrounded the part with a compress for controlling the hæmorrhage. "He even recommended, when necessary, a preliminary operation for securing the blood vessels and stitching them before proceeding to the amputation, which he performed invariably at the joint, by circular incision. After the removal of the limb, whatever hæmorrhage occurred, he arrested by the actual cautery; taking due care not to apply the heated iron to the divided extremities of the nerves."‡ He gave an excellent description of leprosy, with the different forms and splotches which distinguished its varieties. However, he is reprobated for having been fond of introducing new and obscure terms into the science; so much so as to puzzle even the ingenuity of Galen, who wrote a commentary on his doctrine of the pulse. Bostock observes, "that it appears to have contained a number of subtle distinctions, many of which we may venture to affirm have no real existence, and to have been, for the most part, the result rather of a preconceived hypothesis than of actual observation; and the same remark may be applied to an arrangement which he proposed for fevers" *

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* De Different. puls. lib. iii.

†Aetius, lib. iv. c. 86.

‡ Watson. Medical Profession in Ancient Times, p. 127.

We fully agree with Dezeimeris, Ollivier and Raige Delorme, who, in speaking of Archigenes, deny him the title of Eclectic, remarking that the syncretism of the Pneumatics, and of Archigenes in particular, is far from deserving the appellation of Eclecticism, given to it by historians.

The Eclectic philosophy originated in Alexandria under the auspices of Potamo, who, according to Diogenes Laertius,† "*picked out of the doctrines of each school what pleased him most.*" Leonidas, a physician of the same city, adapting the philosophy of Potamo to medicine, endeavored to establish a new system, not by carefully avoiding the errors and hypotheses contained in the different theories in vogue, but by "picking out of the doctrines of each school what pleased him most. To the incongruous assemblage of hypotheses thus obtained, he gave the name of Episynthetic system. Agathinus and Archigenes followed the same method, and are, therefore, more properly designated as Episynthetics‡ than as Eclectics—an appellation which distinguishes them from the true Eclectics of our day.

It is not improbable that the Episynthetic school of Rome was in a great measure the result of the failure of the Pneumatic system, which had been established in opposition to Methodism. Its advocates endeavored, by combining the most popular tenets of the Dogmatists, Empirics, Methodics and Pneumatics, to strengthen their position against the attacks of their powerful adversaries, the pure Methodics. Unfortunately in so doing they did not proceed according to the rules of a severe induction. From the theories of their predecessors, they selected such dogmas as accorded with their preconceived ideas and speculations, rather than the facts and truths contained in each.

However, among the numerous physicians of that epoch, there are two at least, who are not unworthy of the appellation of Eclectics. We allude to Aretæus and Celsus. Not that all the theoretical errors of their day were discovered and rejected by them—for while the first was strongly inclined towards Pneumatism, the latter was not without a leaning towards Methodism; but in their description and treatment of diseases they were but little biased by preconceived opinions, actuated as they were by an earnest desire to arrive at truth, not for the support of any particular theory, but for truth itself.

Some historians, Le Clerc, Goulin, etc., have placed Aretæus among the

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* Cyclopædia of Practical Medicine, vol. iii, p. 195. Am. ed.

† Lives of Philosophers. Introduction, p. 13. Bohn's edition.

‡ Derived from a Greek verb, signifying to assemble or gather.

Pneumatics; Wigan and Dezeimeris have pronounced him a Methodic, while others rank him among the different sects of the Dogmatists; but all concur in bestowing the highest praise upon him. This diversity of opinion is, in our estimation, a proof that he belonged to no particular sect, but selected from each what he deemed most useful and most clearly demonstrated by observation and experience. Castellanus expressly says that Aretæus belonged exclusively to no sect; and Sprengel classes him among the Episynthetics or Eclectics. While this last view is undoubtedly the most correct, it cannot be denied that Aretæus was strongly imbued with the Pneumatic theories of Athenæus. But if his erroneous physiology is generally derived from the opinions of the Pneumatics, his correct details of symptoms, his graphic delineation of diseases, are evidently those of an eclectic observer.

With the Pneumatics, he considered the heart as the source of vitality and strength, and as possessing the power of drawing in cool air (pneuma), which was afterwards diffused throughout the body by the arteries; while to the lungs, which he regarded as the centre and source of animal warmth, was assigned the office of heating it. "By the two important means of food and breathing," says Aretæus,* "animals maintain their existence; of these by much the more important is breathing, for if a person stops his breath he does not last long, but quickly dies. The organs subservient to it are many; it begins in the nostrils, passes through the trachea, and is located in the lungs, of which the thorax is the entrenchment and receptacle. Other parts are merely instrumental to the animal, but the lungs contain the cause of attraction; for the heart, which is a warm viscus, the source of life and respiration, is lodged in the midst of them, and imparts to them the desire for cold air which they heat, while the heart sucks it in. Hence if the heart be in the first instance disordered, death soon follows."

The lungs, which, he remarks, were composed of a substance like wool, were not susceptible of much pain, and he thus accounts for the mischief which may be wrought by their disorders, while the patients are but little aware of it. The pleura, on the contrary, is very sensitive, and is the seat of pain in inflammatory affections of the chest.

He believed with Erasistratus, that the liver was the source or root of the veins, and besides the secretion of bile, he assigned to it the office of making blood, describing the greater part of it as being a mere concretion of this fluid.†

The spleen was the cleanser as it were of the dark impurities of the blood. The stomach was the source of hunger; it presided over pleasure and uneasiness, joy and sadness; and, from its proximity to the heart, contributed greatly to the strength of that organ. These ideas respecting the heart and stomach, are more fully developed in his chapter on Syncope, ‡ where he says: "How appropriately has the physician, how justly has the public voice named this disease 'the quick destroyer!' For what can be more powerful or more rapidly fatal than syncope? What other name could be more expressive to describe its effects? What part is more important than the heart in its influence on life and death? And there is no improbability in syncope being a disease of the heart or an injury to the powers of life which reside in it, such is its destructive rapidity, and such its form. For the disorder being inimical to the human constitution, consists in loosing the bonds of vitality, on which when the disease has once laid its fangs, it quits not its hold until it consigns the body to dissolution. And in what consists the wonder? There are other special and important diseases in parts where they are implanted, and to which they appertain: thus pestilential buboes are a disease peculiar to the groin, and are exceedingly malignant, while they occur in no other spot; convulsion is a disease peculiar to the tendons, epilepsy to the head, and in the same way syncope is a disease of the heart and life. They who think this is a disease of the stomach, because the heart's power is restored and the disorder repelled by food and wine, and in some cases even by cold water, might in my opinion, as justly suppose that phrenzy was a disease of the hair of the head and of the skin, because the frantic are relieved by shaving and cold affusions. The truth is, the stomach is an important neighbor to the heart from which the latter derives what is useful or noxious to it; and as it is the heart that draws in the air through the lungs in respiration, (for respiration does not equally originate with the lungs, for no such faculty exists in this organ, but in the spot where the sources of life and strength are,) so the stomach is neither the source nor the seat of life, for a person may suffer through its atony, and food that is noxious to the heart, will not hurt the stomach, but through its medium the heart. They too, who die of this disorder, show signs of an affection of the heart, which is indicated by the small feeble pulse, by the throbs and violent palpitations, by dizziness, fainting, torpor, giving way of the limbs, profuse and colliquative sweat, want of sensation in the whole frame, and speechlessness. How can these be affections of the stomach? The affections peculiar to it are nausea, vomiting, hiccough, simple and acrid eructations, whilst in those who labor under disease of the heart, the power of perception is sharpened, so that they can see and hear better than before; they have a higher intelligence and a clearer mind, and this not merely as to present events, but as to future ones; they become truly prophetic. These are certainly not the properties of the stomach but of the heart, in which both *soul and vital power* reside, of which principle this is an affection."

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* On the causes and signs of Acute and Chronic Diseases. Translated from the Greek, by T. F. Reynolds, M.B.F.L.S., page 19. We quote from the Philadelphia edition of the "Bell Library," 1841.

† Op. Cit. p. 6 and 52. ‡ Id. p. 24.

The kidneys and bladder secreted and eliminated the urine. The description given by Aretæus of the kidneys, shows that he had some idea of the uriniferous tubes, a full and correct knowledge of which is due to Bellini.

The following are the notions of Aretæus on the uterus:* "In the middle of the ilia in women lies the womb, a viscus specially appertaining to the female, and almost endowed with life, for it moves spontaneously here and there, sometimes aloft towards the cartilage of the sternum, or obliquely toward the right or left, the liver or spleen, and then again goes to the very bottom of the abdomen, and, in short, it is nowhere stationary; it delighteth too in sweet odors, draweth nigh unto them, while it is annoyed with offensive ones and shuns them, and the womb in the female is altogether like one animal within another." He describes a double membrane in the uterus during gestation, the inner one of which corresponds probably with the villous membrane of Hunter.

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* Op. Cit., p. 34. c. xi. On Hysterical Suffocation.

Aretæus considers the brain and spinal cord, and their nervous prolongations, (not without the participation of the pneuma, however,) as controlling muscular action and sensation, and "his attempt to account for the cause of the varieties of paralysis shows no mean effort to grasp what has been reserved for the physiologist of the nineteenth century more fully to explain."*

Aretæus remarks:—"If any nerve below the head be affected, (one of those, for example, which are in the course of the spinal cord,) all the parts to which that nerve is distributed, and even those which are contiguous, become paralyzed; thus the right or left side is involved, as the right or left of the spine happens to be affected. The same result does not occur when the seat of the disease is in the head, for the affection of the nerves of one side causes paralysis of the opposite side, because the nerves are crossed at their source, forming the letter X."

Such were some of the principal physiological ideas of Aretæus. They constitute the weakest, but not the least interesting part of his work, for they are the clearest exposé we possess of the physiological notions which were entertained, not by him only, but by his contemporaries and predecessors. They serve also to show the immense progress which has been made since his time in this department of our science.

The work of Aretæus, however, contains much to atone for the erroneous notions of his day. Indeed, the careful reader cannot fail to discover some important anatomical progress in the descriptions of the parts which he often gives at the heads of the different chapters, before entering into the delineation of diseases.

His semeiography is generally uncontrolled by theoretical ideas. A close and unprejudiced observer, he seldom failed to interpret rightly what he saw and when he wrote on the authority of others, did not hesitate to say so.

Thus, when describing for the first time the multilocular dropsy of the abdominal cavity, he remarks:†—"We see another form of dropsy; many small bladders, full of fluid, are effused into the place where ascites usually exist, and they swim in a quantity of fluid; this disease is indicated when, on perforating the abdomen, you let out a small quantity of fluid, which stops from a vesicle on the inside, blocking the outlet, but again flows when the trochar is introduced. This is not a common form, nor is the way obvious how these bladders can escape; some say that the vesicles occasionally pass off by the intestines; *I have never seen a case of this sort, and therefore shall not speak of it.*"

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* Preface of the translations of Aretæus.

† Op. cit., p. 62.

Free from theoretical assumption and the subtleties of dialectics, all his descriptions of maladies bear an impress of personal knowledge. He had evidently seen what he delineated, and hence his observations are of undoubted value. In his acquaintance, not only with the varieties of the human constitution, but with the effects of locality and climate on health, Aretæus exhibits those high qualities which characterize the medical observer imbued with true philosophical principles.

His practice was energetic, simple, and generally correct. He prescribed few remedies, and those only upon very evident indications of utility. He had frequent recourse to general and local bloodletting, employed cups, scarificators and leeches, and resorted to arteriotomy as well as phlebotomy. The revulsive method was also perfectly known to him, he used both sinapisms and fly-blisters.* He did not, like the Methodics, fear to administer active purgatives; he frequently resorted to narcotics, and, in acute diseases, prescribed a severe diet. His work, which has been styled by Hoffmann "a monument of gold," compels us to regret that his other treatises on the various kinds of fevers, on diseases of women, and on pharmacy, have been lost.

Aretæus, known as "the Cappadocian," appears to have been educated at Alexandria, or at least to have resided in Egypt. It is also supposed that he lived and practised in Italy, but not in the capital. The precise date when he lived is uncertain, and has been the subject of much discrepancy among critics. From his pneumatic opinions, however, it seems probable that he flourished at a time when the doctrines of Athenæus had a strong influence on the medical profession: viz., under the reign of Domitian.

In the uncertainty of chronology, we come now to Aulus Cornelius Celsus, whose name, country and profession have been subjects of many learned disputes. This elegant writer, surnamed, for the purity of his style, "the Cicero of Physicians," is supposed to have been the same Celsus, who was the friend of Virgil, Horace and Ovid, and who died towards the close of the reign of Augustus. We shall not stop to consider the probability of the correctness of this opinion, sustained by Bianconi, Le Clerc, Schulze and Morgagni; we shall not discuss whether he was from Rome or from Verona—for glory it matters not.

Under the title of ARTIUM LIBRI, Celsus composed an encyclopædia of general knowledge, in which Agriculture, Rhetoric, Law, the Military Art, History and Medicine were fully treated in a masterly manner. Some historians have concluded that he never practised the art, and, perhaps, was not a physician, because he is not cited as such by Pliny, and because, according to Columella, the knowledge he displayed on each of the various subjects he treated, entitles him to a distinguished rank amongst agriculturists, rhetoricians, legislators, tacticians and historians. They observe that the learned among the Romans, as well as among the Greeks, had an encyclopædic education; that the works of Cato and Pliny, like those of Plato and Aristotle, contained a general summary of human knowledge; forgetting, however that it is as preposterous to compare the writings of Cato and Pliny on medicine with those of Celsus, as it would be to place those of Plato and Aristotle on the same level, in a medical sense, with those of Hippocrates.

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* The internal administration of cantharides dates back to the time of Hippocrates; but the first mention of the use of these flies externally, as a vesicatory, is found in the writings of Aretæus and Archigenes. See Le Clerk, Op. cit., p. 513.

The low esteem in which the science was held by the aristocracy of Rome, and the contempt with which its professors were generally regarded, may have restrained Celsus from entering on the *public practice* of an art in which he was so well qualified to win fame and fortune; but the imperishable monument he has left us in his De Re Medica, furnishes the strongest evidence that he was a physician. That this most remarkable production, in which the theoretical and practical errors of the predecessors and contemporaries of the author are so admirably exhibited—in which the whole field of medicine, from its minutest details to the most comprehensive and difficult questions of its philosophy are so ably exposed, should have been the work of any but an accomplished and skilful physician, is too improbable to be true.

The De Re Medica of Celsus is the most perfect compendium of ancient medicine which has descended to us. The introductory chapter contains a concise but valuable history of medicine, in the conclusion of which he institutes a judicious comparison between the Empirics and Dogmatists.*

Of the eight books of Celsus, the four first are dedicated to internal maladies, principally those which may be cured by diet; the fifth and sixth treat of external diseases, including many recipes; the seventh and eighth are devoted to surgery. Throughout all of them a number of facts are adduced, which throw light upon the healing art in general. His clinical and semiological principles are occasionally taken from the writings of Hippocrates, and often from those of Asclepiades of Bithynia. He was not, however, a mere compiler of minute details, but one "able to grasp the philosophy of medicine, and at the same time not to overlook any facts essential to the guidance of the practitioner." We find in him the same simplicity in the management of diseases, the same faith in the efforts of nature, the same abhorrence for speculative theories, which distinguished the "divine father of medicine." Like Asclepiades, he rejected most of the empirical and absurd formulas so much in vogue at that time. Dietetics, air and exercise were the principal means he employed in ordinary cases, but he was ever ready to resort to more active treatment when he deemed it requisite.

When citing his favorite authors, he displays independence as well as good judgment in occasionally dissenting even from those whose authority he usually respects. He rejects the Hippocratic doctrine of critical days, and does not hesitate to expose many errors of the founder of the Methodic school.

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* We have already availed ourselves of the information contained in this introductory in our sketch of these sects.

Thus, in book 1, section iii., in speaking of emetics and purgatives, he says:—"I am aware that Asclepiades has rejected the practice of vomiting, in a book composed by him 'on the manner to preserve health,' and while I am not disposed to blame him for having condemned the custom of those who are in the habit of resorting to that method daily for no other purpose than gormandizing,* I think he has carried this exclusion too far. He also proscribes, in the same book, the use of purgatives. It is true that these two modes of evacuating are pernicious if they are brought on by too violent medicaments, but it is false to say that they should be excluded forever as remedial means. There are circumstances depending on seasons and temperaments which make them necessary, and great advantages may be derived from their administration, provided they are used properly, with moderation, and only when needed. Asclepiades himself is obliged to admit that it is important to expel corrupted and putrid matter from the body; it is, therefore, important not to reject absolutely the use of emetics and purgatives; they are useful in many cases, but should be administered with precaution and discernment."

In book 3, section iv., he blames Asclepiades for allowing food to patients during the height of fever; and in the same book, section vi., he says that Asclepiades committed an error in asserting that a variety of aliments facilitated digestion. "It is true," he adds, "that, when food is varied, one eats more, but the digestion depends altogether on the quantity and the nature of aliments." In section xviii., when describing the treatment of phrenitis, he remarks:—"The ancients kept such patients in darkened rooms, thinking that it was dangerous to allow them to discern objects which, being mistaken for something else, might frighten them, and under the supposition, also, that obscurity had a tendency to compose and tranquilize the mind. But Asclepiades pretends that there is nothing which is so liable to terrify such patients as darkness, and he therefore recommends that they should be kept exposed to the light. Neither one or the other of these methods should be exclusively followed. Some phrenetic patients are frightened when left in the light, others when in the dark, and others again are not affected either by light or by obscurity," etc.

"Asclepiades pretended that to bleed in phrenetis was equivalent to killing the patient, because this disease was always accompanied with acute fever, and he taught that bleeding was not admissible except during the remission of fever. In such cases he endeavored to produce sleep by repeated frictions, but the violence of the fever prevents sleep, and frictions do no good until the fever is subdued. Therefore, Asclepiades should not have prescribed that means," etc.

Like the Methodics, Celsus gave but few internal remedies; the general maxim by which he was guided in the treatment of fevers was, "that if nothing was given which could entertain the fever, it would cease of itself. We find in this the "*autokrateia*" of Hippocrates, in other words, the germ of the doctrine of the vis medicatrix naturæ; but it would be wrong to infer from it that Celsus had no confidence in therapeutical measures. Far from it; h occasionally shows great boldness in the employment of such means. Thus in laying down the rules for bloodletting he observes, (Book 2. sect. x.,) "that the symptoms of certain diseases may require bleeding, while the patient has hardly the strength to sustain the loss of blood. In such a case if there is no other remedy, and if it is thought that the patient cannot recover without the aid of a heroic measure, it is the duty of a good physician to express the opinion that while there is no other means left but bleeding, it is far from being unattended with danger. Then, if it is demanded, bloodletting should be resorted to without hesitation; *for it is better to try a doubtful remedy than to do nothing.*"

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* Not an uncommon practice at that time in Rome.—V. J. F.

In continued fevers which assumed a low, or what we would call a typhoid character, (febris lenta,) Celsus gives the first idea of the perturbating method. In order to change the course of the disease, he directs the use of cold water, mixed with oil, over the body. Chills are thus produced, which cause a change in the disease. If reaction does not take place, wine and nourishment are given, and frictions are made with oil and salt. A greater degree of surface warmth is thus created, and a remission follows, which renders a cure possible.

Celsus did not rely on the pulse alone as an indication of fever, or as an index of the condition of the system, because he thought that age, sex, temperament, passions, gastric derangement and temporary pain, not depending on a diseased condition of the system, or even the presence of the physician produced marked differences in the force and frequency of the arterial pulsations. The eye, the respiration, the state of the skin and of the superficial venous vessels, were, according to him, more reliable indications. Like the Methodics, he based his theory of fevers on the strictum and laxum, and his treatment was in accordance with this view.

He bled and applied cups on the chest in peripneumonia, and gave a warm decoctions of hyssop and figs or honey. He also bled in pleurisy, and applied sinapisms, fomentations and wet cups on the diseased side.

His treatment of phthisis is exceedingly judicious. He proscribed the use of baths, recommended great care against cold, and avoidance of all excess in food and venerial pleasures. He directed a vegetable diet, fish, milk and mush, prescribed mild expectorants, applied the actual cautery on the back as a revulsive in the incipiency of the disease, and advised moderate exercise every day. He moreover insisted particularly on change of climate and sea voyages.

It would be far from unprofitable, if our limits permitted, to follow our elegant author through his graphic descriptions of the various internal maladies. This valuable compendium of ancient medicine, clearly shows the great progress which had been made in the philosophy as well as in the practice of our profession. The eclectic course adopted by Celsus enabled him to judge the theories of the systematists who had preceded him with a high degree of impartiality, and if in his views a too decided tendency towards Methodism is noticed, we should remember that it was the favorite system among the best educated physicians of his day. It should not be forgotten, also, that Methodism, with its expectant precepts, was infinitely better than the superstitious practices and absurd formulas of Empiricism; or the wild and contradictory doctrines of the other Dogmatic schools of antiquity.

Books vii and viii of his De Re Medica are devoted to surgery.

"A surgeon," he says, "ought to be young, or at most but middle-aged; to have a strong and steady hand, never subject to tremble, and to be no less dexterous with his left than his right hand; to have a quick and clear sight; to be bold, and so far void of pity that he may have only in view the cure of him whom he has taken in hand, and not in compassion to his cries either make more haste than the case requires, or cut less than is necessary, but do all as if he were not moved by the shrieks of patients."

"It may be asked," he continues, "what are the diseases belonging properly to surgery, because surgeons assume to themselves the curing of many wounds and ulcers which I have treated elsewhere? I am of the opinion that a physician should be qualified in the various departments of the art—but since they have been divided, I esteem him most, whose skill is most extensive."*

The books allotted to surgery in the De Re Medica, are precious, not only because they are the only satisfactory records which have descended to us respecting the progress of surgery in the long interval between Hippocrates and Celsus, but also because they contain the germs of many modern improvements in that department.

Among the numerous interesting chapters on this subject, the one describing the operation of cutting into the bladder in order to extract a stone, has deservedly attracted great attention, and the method therein delineated is still distinguished as the "*lithotomia Celsiani.*" The operation was done as follows: "The rectum was emptied by a clyster, a few hours previously; and, immediately before cutting, the patient was desired to walk about his chamber; he was then placed in the lap of an assistant, or secured in the manner now practised in the lateral operation. The surgeon then introduced the fore and middle fingers of his left hand, well oiled, into the anus, while he pressed with the palm of his right hand on the lower part of the abdomen, above the pubes, in order to promote the descent of the stone. With the fingers the calculus was next griped, pushed forwards towards the neck of the bladder, and made to protrude and form a tumor on the left side of the perinæum. The operator then took a scalpel and made a lunated incision through the skin and cellular substance, directly on the stone near the anus, down to the neck of the bladder, with the horns towards the hip. Then, in the deeper and narrower part of the wound, a second transverse incision was made on the stone into the neck of the bladder itself, till the flowing out of the urine showed that the incision exceeded in some degree the size of the stone. The calculus, being strongly pressed upon with the fingers, next started out itself, or was extracted with a hook for the purpose."*

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* The treatment of diseases was divided by the Alexandrian school into hygienic, pharmaceutic and surgical. "Many historians," says Renouard, "among whom are Le Clerc and Sprengel, supposed, that at that epoch, the medical profession was divided into three orders, which correspond to the three divisions of the science, shown above. They say, that from that time, there were dietetic physicians, who confined themselves to the regulation of the regimen of the sick; pharmaceutists, who prescribed internal remedies; and surgeons, who made dressings and performed all manual operations. Coulin was the first to show that these statements were erroneous. Afterwards Shulze demonstrated, that the division of medicine into hygiene, pharmacy and surgery, as introduced by Celsus, must be understood in a scientific, and not in a professional sense. Lastly, B. Peyrilhe, after having quoted the opinions of his two predecessors, corroborates them by new considerations. "To these opinions," he says, "so much the more respectable, because they come from two physicians profoundly versed in the history of their art, we join a reflexion which could have been made before, though it has not been: that if this division of Medicine existed in the profession, as it did in the Art—if it was civil, as it is certain that it was scholastic, we should be able to discern, very distinctly, among the Romans, three classes of physicians. Now, where shall we find them? All the efforts of some modern investigators, have not been able to show the existence of a single one of these classes, alone; such, for example, as surgeons, that is, men who limited themselves to surgical operations." Op. Cit. translation of Comegys, p. 183.

In hæmorrhages resulting from wounds, Celsus prescribed blood-letting, the local application of sponges moistened with vinegar and other styptics, compression, and the actual cautery. When an artery was wounded and the above means failed to arrest the hæmorrhage, he applied two ligatures and divided the blood vessel between them—a method which has been revived by Abernethy. The ligature was also employed by Celsus for checking the loss of blood from hæmorrhoids—yet, strange to say, he and his contemporaries failed to resort to the same measure to secure the arteries after amputation. In these cases compression and styptics, including the actual cautery being the only means used, many persons died from hæmorrhage. It is not, therefore, extraordinary that fear of this occurrence deterred the ancients from resorting to amputation, except in cases of extreme necessity.† They generally waited until amputation had taken place; and then, in operations, the knife was always kept from cutting deep into the living flesh. Thus Celsus remarks: (lib. vii, sect. xxiii) "Amputation is an operation attended with great peril—for the occurrence of hæmorrhage or syncope, may prove fatal while the patient is still under the knife. But when there is only one remedy remaining, its incertitude, or even the danger which accompanies it, should not deter us from resorting to it. The knife should, therefore, be carried round, down to the bone, between the dead and living flesh, taking care, however, not to perform the amputation too near an articulation, and to cut more into the living flesh than into the mortified portion." etc.

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* Celsus, lib. vii, sect. xxvi, as quoted by Samuel Cooper in his Surgical Dictionary, article "Lithotomy."

The operation of cutting for stone in the bladder may be traced to remote antiquity. The "*Oath of Hippocrates*" expressly prohibited its performance to the general practitioner, enjoining upon him to leave it to those who made it a speciality. It appears, however, that it had fallen into disuse, when the operation described by Celsus brought it again into practice. It is worthy of remark that Dupuytren, a few years back, has, in his bilateral operation, revived the method of Celsus, not without some important modifications, however. (See Dupuytren, Mémoire sur une maniére nouvelle de pratiquer l'opération de la taille. Paris, 1836; and Leçons orales de clinique chirurgicale, 2e édit. 1839; t. iv, p. 667.)

† At that epoch, and in fact for a long time afterwards, the use of the tourniquet was not known. The ancients surrounded the limb with a band above the parts to be amputated, and tightened it sufficiently to prevent circulation. They also believed that the pressure of the band was advantageous in benumbing the limb and moderating the pain of the operation. This defective method, however, occasioned not only pain and contusion, but was frequently followed by abscesses and even mortification. It was not until 1674, that a French surgeon, Morel, introduced the first improvement by the application of a rude tourniquet, which was soon afterwards (in 1718) still further improved by Petit, and others. (See Dict. des Sciences Méd.—vol. 55, p. 368–372).

The rules given by Celsus for catheterism are still followed. However, the copper catheters, which he used, were replaced by silver ones, by the early Arabian practitioners, because the first metal had the inconvenience of becoming incrusted with verdigris. His treatment of other affections of the urinary organs is equally interesting. The same may be said of his remarks on the diseases of the genital parts: phimosis, paraphimosis, ulcers of the penis, the different affections of the testicles, and of his precepts for distinguishing hydrocele from scrotal hernia. The operation for hydrocele was by incision, after which an injection, composed of common salt and nitre dissolved in water, was introduced into the serous cavity with the evident intention of securing adhesions, as we now do with iodine, wine, etc. In laying down the rules for castration, particular attention is enjoined in order not to include in the ligature the vessels of the spermatic cord.

The first notice of effusions within the cavity of the cranium, after a blow, without any appreciable osseous fissure or fracture, is found in the De Re Medica of Celsus. (Lib. viii, sect. iv.) He exposes the error of his predecessors, who, in cases of fractures or fissures of the cranium, thought it always necessary to remove the injured portions of the bones; and in explaining the circumstances requiring the use of the trephine, he shows a progress in the knowledge of the real source of danger, which he points out as resulting from compression, effusion, and the irritation produced by osseous fragments on the cerebral membranes.

Book viii is principally devoted to the description and treatment of fractures and luxations. He establishes with much accuracy the analogy existing between the fractures of the leg and arm, and gives a correct prognosis, based on whether the fracture is simple or compound, transverse, oblique or comminuted. By compound fractures Celsus designates not only those in which the bone protrudes through the wound of the integuments, but also those which occur near the articulations, without external laceration of the soft parts. He makes it a rule to reduce the fracture as soon as possible after the accident, before the contractions of the muscles occur and inflammation sets in. When the inflammation has already progressed considerably, he advises to wait until it has diminished, before attempting to reduce the parts. When union has not taken place, he directs the scraping of the fractured extremities by rubbing them one against the other; and even advises the breaking of the deformed callus in *mal-consolidation*, in order to obtain a more regular union. With his predecessors, however, he fails to distinguish between dislocations at the hip joint and fractures of the neck of the femur. In caries of the bones, he endeavors to promote the separation, not only by scraping the actual cautery, but by boring numerous holes in the diseased bone.

His mode of operating by depression for lenticular cataracts (which is very much as practiced in our day), his operation for pterygion, viz.: to transfix the preternatural membrane with a threaded needle, and after having thus secured and elevated it, to remove it with the knife, avoiding injury to the caruncula; his manner of remedying deformities of the eye-lids, etc., are worthy of a careful perusal.

The remarks of Celsus on the diseases of the ear, are also exceedingly interesting; but for these and many other affections which we have left unnoticed, we must refer our readers to the original—a work which has gone through numerous editions, and which is destined to live as long as our science.

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BIBLIOGRAPHICAL NOTICES.

A TREATISE ON HYGIENE: With Special Reference to the Military Service, by W. A. Hammond, M. D., Surgeon-General U. S. Army; Fellow of the College of Physicians of Philadelphia; etc., etc. Philadelphia: J. B. Lippincott & Co. 1863. pp. 604. For Sale by A. Roman & Co., 417 & 419 Montgomery street, San Francisco.

HYGIENE, or that department of our science which has for its object the preservation of health, is a subject requiring the serious attention of the army surgeon as well as that of the physician in civil practice. With the exception of Dr. Dunglison's excellent work on "Human Health," which is out of print, we are not aware that any general treatise has ever been published in the United States. Great Britain is not better off in this respect; and the practitioner desiring to make himself familiar with this important branch of the profession has been obliged to resort to French and German works. Our exigencies, therefore, cause the present work to be particularly welcome—and by its publication, the author has rendered a great service, not only to the army surgeons, for whom it is particularly intended, but to the profession at large.

Dr. Hammond tells us, in his preface, that there are several subjects, such as Occupation, Exercise, Marriage, Celibacy, which have not been included in this volume, but which he promises to give in a second edition, when called for. The all-important rules, without which no army can be effective, are thoroughly and carefully set forth by the author under the following divisions: Section 1.—On the Examination of Recruits—in which he treats of their general and special qualifications and disqualifications. Section 2.—Of the Agents inherent in the organism which affect the hygienic condition of man; comprising race, temperaments in general and in particular, idiosyncrasy, age, sex, hereditary tendency, habit, morbid habits, and constitution. Section 3.—Of the Agents, external to the organism, which act upon the health of man. These are fully developed by the author under the following heads: The atmosphere, the accidental and non-essential constituents of the atmosphere, temperature, light, electricity, water, soil, locality, climate, acclimation, habitation, hospitals, principles of hospital construction, field-hospitals, lighting, heating and ventilation of hospitals, barracks, camps, food, alimentary principles, physiological and sanitary relations of food, animal compound aliments, vegetable compound aliments, accessory food, alimentation of the soldier, clothing and the hygienic relations of the clothing with the several parts of the body.

Our object in enumerating the various subjects treated, is to give an idea of the important and interesting topics which are considered in a most satisfactory manner in the work before us. The volume is well printed and contains numerous illustrations, many of which are original. We take pleasure in commending it as a valuable addition to medical libraries.

Manual of Instructions for Military Surgeons, on the examination of recruits and discharge of soldiers. With an appendix, containing the official regulations of the Provost-Marshal General's bureau, and those for the formation of the invalid corps, etc., etc. Prepared at the request of the United States Sanitary Commission, by John Ordronaux, M. D., Professor of Medical Jurisprudence in the Columbia College, New York. New York: D Van Nostrand, 192 Broadway. London: Trubner & Co. 1863. pp. 238. For Sale by A. Roman & Co., 417 & 419 Montgomery street, San Francisco.

This Manual which was prepared, as the author informs us, at the request of the United States Sanitary Commission, as a contribution to Military Jurisprudence, embodies all the important points respecting physical disabilities in their relation to the military service. The book is founded principally on the French Code of 1862, entitled: " Instructions pour les Officiers de Santé sur les Infirmités ou Maladies qui rendent impropre au Service Militaire." Dr. Ordronaux's work is not merely a translation, however,—for the text has been altered, whenever it was deemed advisable, to meet the wants of the American surgeons, and notes have been added in order more fully to develop certain subjects. The author has, also, given an Appendix containing the Code of Instructions relating to the United States Army, as adopted by the Board of Medical Officers, April 15, 1863; the Regulations governing the formation of the Invalid Corps; the Prussian list of disqualifying diseases, and the Regulations governing the formation of their Invalid Corps.

By the publication of this Manual, Dr. Ordronaux has rendered an important service to Army Surgeons, whose labors, in the examination of recruits, etc., it will greatly facilitate.

BRAITHWAITE'S RETROSPECT OF PRACTICAL MEDICINE AND SURGERY. Part forty-seventh, for July, 1863,—pp. 208. New York: W. A. Townsend, 39 Walker street. From the publisher.

THIS excellent compendium is too well known to require comment. To practitioners desirous of keeping pace with the progress of the science, Braithwaite's Retrospect is invaluable. No physic an can well afford to dispense with it. Our readers are aware that it contains a retrospective view of the most important discoveries and improvements in the medical sciences, digested from the leading Medical journals of Europe and America. It is uniformly issued in January and July, and is transmitted by mail to subscribers at the small cost of $2 per annum.

EDITOR'S TABLE.

Obituary.

H. M. GRAY, M. D.

IT is with feelings of deep regret that we perform the painful duty of announcing the death of our late distinguished confrère, Dr. Henry Martyn Gray, who died at his residence in this city, at half-past four o'clock, on Thursday morning, 24th inst., aged forty-two years.

Called from a sphere of usefulness and honor, while yet in the prime of life, the end of his earthly existence is justly considered a public calamity by the community in which he lived. Born in the city of New York, Dr. Gray graduated with high honors at the Geneva Medical University. He emigrated to California in 1849, and having established his residence in San Francisco, he soon won for himself a prominent position among his fellow-physicians; while by the genial qualities of his disposition, his high mental endowments, the kindness of his heart and his numerous acts of benevolence, he surrounded himself with a large circle of warm and devoted friends among all classes of society.

Dr. Gray occupied a high position in the Masonic fraternity, was President of the San Francisco Pioneer Association in 1861–2, and at the time of his death held the post of surgeon, with the rank of Lieutenant-Colonel, on General Allen's staff.

MEETING OF PHYSICIANS.—An adjourned meeting of the physicians of San Francisco was held in the Pioneer's Hall on Saturday evening, 26th inst., Dr. Harris in the chair. The Committee on resolutions, through their Chairman, Dr. Coit, made a report as follows:

It having pleased the Almighty to remove by death Dr. Henry M. Gray, a distinguished and honored member of the medical profession, thereby carrying grief into the bosoms of numerous families, and sadness into the hearts of a large circle of friends; we, the physicians of San Francisco, sincerely mourning this sudden bereavement, and desiring to put on record the high estimation in which he was held, the growth of long years of close and familiar association:

Resolved, That in the death of Dr. Gray, a pioneer physician, the medical profession of California has lost one of its most ditinguished associates, and the city of San Francisco one of its noblest and most invaluable benefactors.

Resolved, That the high grade of intellect with which our late professional brother was endowed by nature; the possession of a mind well disciplined by thorough classical and scientific education; his intense love of his profession, his earnestness and assiduity in the investigation of disease; his unwearied efforts in the service of his patients; his kindness, tenderness and extreme delicacy in cases calling for the exercise of such qualities; his humanity to the poor and the outcast, have placed his name high on the roll of eminent physicians.

Resolved, That his easy, dignified bearing, his nice sense of honor, his punctilious observance of all rules which he deemed necessary to protect the rights and interests of his professional brethren, together with his uniform politeness and courtesy, are qualities by which his character was eminently distinguished, and were calculated to add honor and dignity to the profession.

Resolved, That we extend to his aged mother and his relatives our cordial sympathy in these dark hours of their affliction.

Resolved, That the members of the medical profession be requested, as a mark of respect to the deceased, to wear the usual badge of mourning on the left arm, for thirty days, and that a copy of these resolutions be transmitted to his family.

BENJ. B. COIT, Chairman.
H. W. GIBBONS,
V. J. FOURGEAUD.

On motion, it was voted that the report be adopted. and a copy thereof published in the daily newspapers of San Francisco.

Drs. Coit and Harris were appointed to act as pall-bearers.

The meeting then adjourned to meet at the Pioneer's Hall on Sunday, 27th inst., at one o'clock, P. M., to attend the funeral ceremonies.

A. F. SAWYER, Secretary.

* * *

Health of San Francisco.

Comparative Mortality for the Two Years ending respectively August 31*st*, 1862 *and* 1863.

THE total number of deaths for the month of August was 163, being 17 less than for the preceding month. 95 were recorded in the Lone Mountain cemetery, of which 23 were under three years; 66 in the Roman Catholic burying ground, of which 23 were under three years; and 2 in the Jewish cemeteries. The principal causes of death are recorded as follows: Consumption, 12; lung diseases, 3; brain diseases, 6; apoplexy, 2; heart diseases, 3; fever, 2; typh fevers, 2; enteritis, 1; dropsy, 2; cholera infantum 2; sore throat and diphtheria, 6; croup, 1; scarlatina, 2; dentition, 2; whooping cough, 3; measles, 2; erysipelas, 1; debility, 4; paralysis, 3; still born, 15.

The following is a comparative table of mortality for the two years ending respectively August 31*st*, 1862 *and* 1863.

1861.		1862.	
September	164	September	170
October	154	October	173
November	165	November	167
December	195	December	179
1862.		1863.	
January	173	January	160
February	218	February	151
March	207	March	192
April	174	April	157
May	152	May	173
June	160	June	175
July	199	July	180
August	222	August	163
Total	2183	Total	2040

REMARKS. Notwithstanding the steady increase of our population, it will be perceived that there were 143 deaths less, for the year ending August 31st 1863, than in the preceding year.

The average *monthly* mortality for the year ending August 31st 1862, was 182; for the last year it was only 170. Of the 2040 who died during the last twelve months, 551 were children under 3 years of age, and 140 still born.

During the last year the highest monthly mortality was in March—192; the lowest in Febuary—151. During the previous year the highest monthly mortality was in August—222; the lowest in May—152.

If we estimate our present population at 100,000, our rate of mortality has been less than 1 in 49; showing a degree of salubrity which may be advantageously compared with that of any large city in the civilized world.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Faradization.

BY W. E. BOWMAN,
Editor of the Canada Lancet.

It is now over thirty years since the discovery by Faraday, that wire insulated by a covering of silk or cotton, and encircling a piece of iron, becomes electric at the moment of bringing a magnet into contact with, or separating it from it; the wire being unconnected with either, and remaining unaffected, but on the movement of the magnet to or away from the iron within it. The currents thus induced run in opposite directions, that is, the end of the wire which gives positive electricity on the application, shows negative on the removal of the magnet, and *vice versa* with the other extremity of the wire, hence the name "to and fro" currents. They become much more perceptible when the iron is bent, and a horse-shoe magnet employed to touch both ends at the same time.

Like currents are produced in the wire when placed around the magnet, and its poles touched with soft iron.

Temporary or electro-magnets evolve similar phenomena.

And voltaic electricity from a pile, or a simple pair of zinc and copper plates, when passed through an insulated coil of wire, also generates at the moments of making and breaking contact, the same to and fro currents in another coil placed over it, or with it on the same spool, although not otherwise connected.

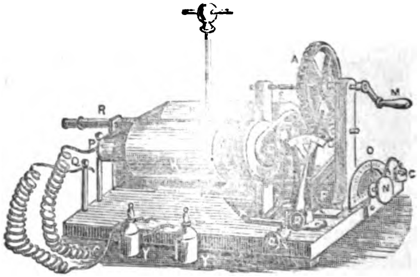
Rheotomes—It therefore follows that to have continuous induced currents the contacts or withdrawals of the magnet, or the interruptions in the stream from the voltaic plates, must be numerous and speedy; contrivances for this purpose are styled rheotomes (i. e. cut-currents) and have taxed the ingenuity of scientific men in all parts of the world.

It will hence be observed, that although these sympathetic currents are always produced from spools of insulated wire, yet that there are three modes of inducing them, viz.:—the permanent magnet—the electro magnet—and the electric coil, the two latter requiring voltaic electricity.

Dr. Duchenne of Boulogne, who has devoted a great deal of attention to this subject, and whose large work is without doubt the most complete extant, extensively employs these induced currents, and in honor of their discoverer has denominated their application Faradization, which happy appellation has been at once adopted by the profession at large. When from a permanent magnet, he calls it Magneto-Faradic; and if induced from a battery, Volta-Faradic.

After this explanation, it will be seen why by Faradization is only to be understood the employment of induced or discontinuous electric currents.

Magneto-Electric Machines.—In these the insulated wire is put upon wooden spools, and slipped over the ends of a piece of bent iron, which are turned around in front of a horse-shoe magnet. They are decidedly the cleanest and prettiest instruments for medicinal purposes, and the ones most frequently employed in this country. They come to us from the United States, where they are manufactured cheaply in great numbers, and extensively employed both by medical men and the community at large; and all those that I have seen, are made to transmit the undivided to and fro currents as generated. The electrodes (or handles), being alternately positive and negative, pass the electricity backwards and forwards through any portion of the body placed between them. In more perfect instruments, however, of which those of the English makers are not excelled in the world, control may be exercised over one of these sets of currents, and a positive and negative electrode be produced at pleasure, thus enabling the operator to pass the stream in any direction desired. This is of great advantage, for a current running with a nerve is much less excitable than an inverse or mixed one.

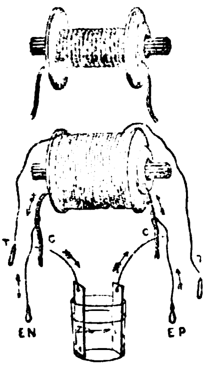


M. Duchenne's Magneto-Faradic Apparatus,

In this instrument, invented and employed by Dr. Duchenne, the spools are placed over the magnets, and contain first, eighty feet of insulated copper wire one-fiftieth of an inch in diameter, over which is wound nearly two thousand feet of another of one-seventy-fifth of an inch. In both of these wires are generated the same to and fro currents, which however vary greatly in character, those from the larger being much more powerful, and from the longer and smaller, more penetrating.

Volta-Electric Apparatus.—Soft iron becomes magnetic when surrounded by an insulated coil of wire through which is passing a stream of voltaic electricity; and an instrument could be made precisely like the one with the horse-shoe magnet, but with a power much greater, depending as it would on the strength of the battery employed. But the turning of a handle is unnecessary with a battery, as to produce Faradic currents, we have merely to place another coil over the temporary magnet, the intervening wire being no hindrance to their development. The top coil must also be insulated, and be unconnected with either the wire beneath, the iron, or the battery.

The current produced on breaking contact runs in the same direction as the battery current, and that on its junction on the opposite way. Faradic currents, as already stated, may be produced by a coil of wire and pair of plates alone, but the inducing power of an electric magnet so far exceeds it that the soft iron helix is never omitted in these instruments, but is withdrawn when a diminution of strength is required. If a bundle of annealed wires, each insulated, be substituted for the bar of iron, forming, as they would, so many distinct magnets, the currents would be still further intensified; they must not, however, be encircled by any metal which partially does away with this increase of power.



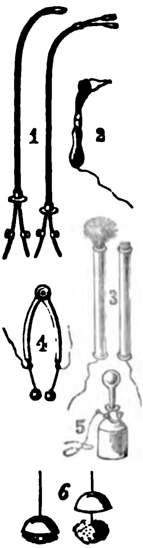
The wood cut is intended to illustrate the formation of the coil machines. The top spool has its inducting wire arranged to receive the finer, which is placed over it in the second. The rheotome is not inserted. The electrodes T would give the to and fro currents on separating or connecting the wires at C.

Extra Currents.—The Volta-electric apparatus possesses an advantage over the magneto-electric instruments, in generating an extra current of induction in the larger wire at the instant that the battery is cut off, and unlike that induced in the finer wire, it runs but one way, which is the same as the battery; it lasts but for an instant and may be felt strongly at the disks E N and E P. It is an induced current in the inducing wire, after each stoppage of the electricity from the Voltaic plates, and is very convenient as a therapeutic agent. And if the to and fro currents, formed in the finer wire, can be divided at pleasure, it gives a very perfect instrument with three sets of currents, the to and fro and single currents from the long fine wire, and the extra current from the coarser. Those from the first, according to Duchenne, being more penetrating and having an especial action upon cutaneous sensibility, and likewise upon the retina; and those of the larger wire upon muscular contractibility.

Induced currents differ, as a therapeutic agent, from Voltaic electricity, in moving alternately in opposite directions, and in being a quick succession of minute shocks; it is to the latter alone, however, that its superiority is due, for effects, similar in every respect, may be obtained from a small galvanic battery, if its current be made discontinuous by means of a rheotome.

Induced electricity is decidedly medical electricity, and, apart from its other advantages, is superior to all other forms in producing powerful muscular contractions, without exciting cutaneous sensibility, causing shocks, or tearing the capillary vessels. And its employment is unaccompanied by risk of altering the tissues by chemical action, an effect which is liable to occur with continuous Voltaic currents.

Electrodes.—By this term is understood the poles or handles attached to the ends of the wires, by which the application of the electricity is made to the different parts of the body. The pair most universally applicable are brass cylinders with wooden handles, as shown at 5; they are intended to hold sponges saturated with salt water. Duchenne's cups and sponges, as may be seen, are much larger than those ordinarily employed. Disks, balls, cones of metal and wood, similar to those used with frictional electricity, may all prove useful in Faradization.



The excitors, fig. 1, are intended for the bladder, and when made a little less curved, answer admirably for Faradizing the os uteri in amenorrhœa. The wires are run through an elastic catheter with a division to keep them isolated. Fig. 2 is for the ear; the cone should be made of wood or ivory. Fig. 3 is a wire brush for stimulating the skin, and producing counter irritation. It should be attached to the negative conductor, when the apparatus allows of divided currents.

A pair of very convenient sponge electrodes may be made by cutting a hollow India-rubber ball in two, and inserting a sponge into each half as shown in fig. 6.

In applying electricity, it must be recollected, that the stream passes into the body at the positive electrotode, and out at the negative one, on its way to complete its circuit.

By a direct current is understood one that follows the course of a nerve and consequently of nerve force; it is produced by placing the positive conductor on a nerve nearer to its origin in the brain or spinal cord, than the negative one. Or, in other words, to cause a direct current, the negative electrode must be placed upon a nerve nearer to its point of distribution than the positive one. Inverse currents, as their name implies, run in a contrary way to force nerve, and the electrodes are reversed to produce them.

Direct currents, although occasioning contractions in the muscles to which a nerve is distributed, has the effect of decreasing for a time the excitability of the nerve itself. It is owing to this important power that it is so desirable to be able to employ them alone; for the reverse currents of the to and fro instruments stimulate and counteract this effect. But when these double currents are very intense, the inverse become overpowered by the direct.

From these facts it will be deduced that feeble and long continued to and fro currents are best adapted to rouse vitality and exercise a tonic influence upon weak and atrophied tissues.

The human body is not a good conductor of electricity when compared to metals; its most impregnable part, however, is the epidermis, the resistance of which when dry has been placed by Lenz, after many experiments, as high as 36 times that of the conducting wire alone. The skin once passed, however, he found the structures beneath not to exceed five times. Persons accustomed to working with Voltaic batteries, are perfectly aware of this great difference, from the increased facility and power with which the current enters the hands through the least scratch or abrasion of the cuticle, and the severe pain it occasions at these points.

Electro-puncture.—Faradization through steel or platina needles passed into the deeper tissues is one of the most efficient modes we possess of localizing the current and stimulating them to healthy action, or restoring them to lost contractibility. Triangular shaped needles, similar to those employed by glovers, are best adapted for the pnrpose: when of steel they should be plated with gold, for their oxidation in the wound during the passage of the electric currents, not only increases the pain, but leaves an indelible stain behind them. Bloodvessels should not be transfixed, nor is it absolutely requisite to pierce a nerve; it is quite sufficient if the needles come in contact with it.

Baths.—Electricity penetrates the skin without difficulty through water, and the application of to and fro currents in a bath, is a powerful means of arousing the action of the system in cases of debility. The hip bath, foot bath, or merely inserting the hands into a basin of water, also gives a ready entrance and exit to the currents if one conductor be put into the vessel, and the other, a moist sponge, be placed above the part to be Faradized. Salt increases the conducting power of the water, and it may be conveniently added to it when operating through the hands or feet.

Sponge Electrodes.—Next in point of penetrability are sponges moistened with salt water, which when pressed firmly upon the wet skin, act as good conductors to the deeper tissues without electrization of the cutaneous surface, which however becomes momentarily affected on bringing the electrodes into contact with it, or on removing them, whilst connected with the working instrument; this may be readily obviated by crossing the wires of the two poles until the sponges are placed.

Electro-cutaneous Excitation.—When the skin is dry beneath one or both electrodes, the currents flow chiefly along or within its surface, and when intense, act painfully upon the superficial muscles beneath. Before Faradizing the skin, all humidity should first be absorbed by means of a little rice powder or corn starch, then having placed a moist conductor on some other portion of the body, apply a dry one to the part to be excited, or, holding it in the hand, pass the back of the fingers lightly over the surface. The application of the metallic brush, however gentle, is a much more severe mode of arousing sensibility, and is very painful when the cutaneous surface is struck slightly with the extremities of the wires. Duchenne calls this flatter ***electric fustigation*** and ***electric moxa*** when the ends are left in contact with it.

Of the Nerves.—The muscles are much better conductors of electricity than the nerves, therefore, when it is desired to apply them to the latter, it should be done where they are most superficial, and in contact with tendons or aponeuroses, or surrounded by cellular tissue; and even in these situations but a portion can be made to traverse the nerves.

Weber has proved, after many interesting researches, that although Faradization of the spinal marrow alone produces violent contractions in the muscles of the trunk, these contractions arise, not from electricity, but from nerve force brought into action by the stimulus to the cord. And that neither contractions nor heat can be observed in nerve matter on electrical excitation.

Induced currents passed through the sympathetic, or through the organs to which it is distributed produce contractions in the muscular tissue of the latter, which, however, differ from those of the voluntary muscles in being less energetic and more permanent, and in succeeding each other in an order corresponding to their functions, which they increase.

Of the Muscles.—Faradization of the muscular tissue is said to be ***general*** when produced through the nerves, and ***local*** when applied to the fibres themselves; the latter is more superficial except when a powerful current is employed. Next to electro-puncture, local electrization is best accomplished by means of the sponge electrodes wet with brine, and pressed firmly upon the skin within a few inches of each other, moving them frequently, until every part has been brought under its influence.

Excitation of the periosteum is peculiarly painful, and should be avoided when possible.

Paralysis.—Ever since its discovery, Faradization has been recommended as a remedial agent of great efficacy in paralysis, both local and general, stimulating the nerves and muscles in the former into renewed life and activity, and supplying them in the latter with electrical, in lieu of deficient nerve force, thus keeping up their action and development, and preventing atrophy, whilst nature is restoring the power of the local centres. It cannot, however, be made immediately available as in all forms of local paralysis. In both local and general, the to and fro currents are particularly adapted, and should be applied directly to the parts affected, without passing them through the seat of any recent cerebral or spinal injury. They should be employed for short periods, and be frequently repeated.

Where there has been a separation of a nerve by injury, or even a loss of its substance, with years of permanent paralysis, the patient application of electricity will occasionally be found to restore the action of the muscles supplied by it, showing that there has been regeneration of the nerve filaments in the cicatrix, and that want of stimulus alone has prevented the return of power. After accidents of this kind, the rule is, when the muscular contraction has not been destroyed, the parts should be submitted, as soon as possible, to local electrization; but when lost and insensible, from four to ten months must be allowed for the perfection of the nerve fibres.

Paralysis of the nerves of smell, taste, sight and hearing have each occasionally been restored by electrial excitation.

I have had some encouraging, although but partial successes with it, in loss of smell from chronic catarrh, in which I employed the double currents, placing one sponge over the nostrils, and the other at the nape of the neck.

Dr. S. Wells recommends it in cases of strabismus dependant upon paralysis of muscles of the orbit without cerebral lesion; he directs one moist sponge to be placed on the lid over the weakened rectus, and the other to the temple, and begins with applications of five minutes duration, increasing them gradually to twenty minutes.

In deafness without evident cause, but deficient cerumen, Faradization is well worthy of a trial. The ear should be filled with water, and weak and slow currents passed through it from the back of the neck, being careful not to allow the conductor to touch any portion of the meatus or tympanum.

Local paralysis of the bladder with incontinence of urine, either in adults or children, may often be successfully treated by means of the to and fro currents passed daily, for fifteen minutes, between the interior of the bladder and the pubes, employing the excitor fig. 1, and a sponge electrode. It seldom requires more than a single application to effect a change, or over five or six to give permanent relief.

In tic douleureux, the nerve may be deadened by strong direct currents, (extra currents being the best) applied by means of moist conductors.

Faradization in lead palsy, is in general very tedious, and requires 30 to 100 sittings, at each of which pain should be excited in the paralyzed muscles. The currents employed should be rapid and intense, and not be continued longer than ten minutes, otherwise the nerves themselves will be liable to be injured by them.

In chorea, M. Briquet remarks that induced currents, passed through the muscles, act but temporarily, but if applied merely to the integument, they occasion rapid and marked diminution of the movements, and frequently effect a prompt removal of the malady. He Faradizes the skin every day or every other day, for five or six minutes, along the entire length of the affected limbs, persevering with the treatment for several months when necessary.

In amenorrhœa, Faradization proves successful only after the health has otherwise been re established. To and fro currents should be passed between the sacrum and pubes, beginning several days before the period. In cases permitting it, an insulated conductor may be carried up to the womb, and the electricity be passed through it from the lower part of the abdomen.

To produce contractions of the womb and expulsion of its clots in post partem hemorrhage and in dysmenorrhœa, or to cause more rapid labor in placenta prævia, after due dilatation of the os, Faradization may be employed as an auxillary to other means, in deference to the success attributed to its use by some few authors of merit. The mode of its application is the same as for amenorrhœa.

It is in hysteria particularly, more than in any other disease, that the to and fro currents prove most successful. In its convulsions, paralysis, tetanus, aphonia, and all its thousand and one anomalous sensations, their employment frequently acts in a surprising manner; the dread alone of the more powerful shocks, having sufficient influence upon the mind to control, and prevent their recurrence.

The secretion of milk, when suspended or delayed, has occasionally been reproduced in a few hours by the application of the sponge electrodes, and the passage of moderate to and fro currents through the glands for ten or fifteen minutes. It should be repeated daily until the return is fully established.

In neuralgia, powerful direct currents (extra currents) should be passed along the affected nerve, through moist conductors, for a few minutes only, and be repeated each time of the return of the pain. The intervals will be found to become longer and longer, and the sensibility to decrease at each renewal of the attack, until it entirely ceases. If electro-puncture be preferred, as strongly advocated by many, weak currents must be employed, and but for a few seconds only.

In bronchocele, electrical excitation renders the thyroid gland more susceptible to the power of the iodine or other absorbents.

In chronic rheumatism, direct currents give relief and promote the absorption of effusions. In cases of rigidity, as in crick in the neck, the to and fro currents applied to the healthy antagonistic muscles, by causing their contraction, act powerfully on the diseased ones, subduing their excitement and irritability in the same manner as the exercise of the opponent muscles in ordinary cramps. Dr. Christophers passes the current down the spine, and through the affected part daily for half an hour or longer, and speaks of a case of three years standing that was thus greatly benefited by it.

In hydrocele, electro-puncture by exciting the serous membrane to absorption, frequently proves successful, even in obstinate cases, in removing the effusion. The needles should be inserted deeply into the fluid from opposite sides, and to and fro currents be gently passed through them for fifteen minutes, increasing their intensity until the pain is complained of; the application may be repeated several times if necessary.

In deficiency of semen, with loss of desire or imperfect erection, I have found the to and fro currents of much benefit, in one case a single application producing a return of power. They should be passed through the testicles, and along the erector muscles from the ischium to the dorsum of the penis, employing the sponge electrodes daily, for fifteen minutes.

In irritable states of the bowels, accompanied by slimy stools and alternate constipation and diarrhœa, to and fro currents applied to the colon from the spine, with moist electrodes, has been found of much service.

In poisoning by opium, Faradization is the most efficient means we possess of sustaining life during the continuance of the narcotic effects of the drug upon the brain; in which time the stomach-pump and stimuli will not of course be neglected. Dr. Herepath's experience on this subject is worthy of attention; he found, after numerous trials, that when the direct currents only were employed, the positive electrode being placed upon the mucous membrane of the mouth, and the negative just below the ensiform cartilage, that the respiratory movements were carried on with considerable more regularity and ease than by any other method, but that when the conductor was shifted from the cheek to the tongue, spasm of the glottis was produced and asphyxia threatened. In arrest of the heart's action from chloroform, direct currents should be passed through sponge electrodes from the nape of the neck to the ensiform cartilage, placing the positive to the former. But if to and fro currents only are available, the shocks should be passed from side to side, placing one conductor over the cardiac region. In both cases the finger should be kept pressed between the ribs, and when the heart or diaphragm is noticed to contract, the currents should be momentarily suspended.

By the terms "sponge electrodes," "moist electrodes," "moist conductors," and "moist sponges," are intended Duchenne's cylinder conductors, containing sponges wet with salt and water, and pressed firmly to the skin during electrization.

In conclusion, I would remark, that for the successful employment of Faradization, great patience and perseverance is required, and the conjunction of other remedial agents should in nowise be neglected.—*Canada Lancet.*

Case of Cæsarean Section.

BY J. G. SWAYNE, M. D.,
Physician-Accoucheur to the Bristol General Hospital.

THE woman operated on was a dwarf over forty years of age; her height was only four feet and half an inch, and the deformity of the pelvis was congenital. She was unmarried, and did not apply for medical advice until the time of labor, when she was first seen by Mr. Henry Grace, of Kingswood, near Bristol, and brought by him to the Bristol General Hospital. Here Dr. Swayne saw her, and advised the Cæsarean operation, which was accordingly performed by Mr. Coe, the senior surgeon to the hospital. The section was made in the usual manner by an incision in the linea alba. The child was extracted alive, but the mother died forty-two hours after the operation, from peritonitis. The pelvic deformity was chiefly occasioned by the very peculiar form of the sacrum, the anterior part of which, instead of being concave, projected forwards towards the symphysis pubis, and thus reduced the antero-posterior diameter of the pelvic cavity to one inch and four-fifths. The child is now living.

Mr. Spencer Wells wished to know whether the opening in the uterine wall had been left to close spontaneously, or had been closed by sutures.—He was not aware whether sutures had been used in any case, but it had struck him that the escape of blood, or of the secretions from the uterine cavity, into the peritoneal cavity might be one cause of mortality after the Cæsarean section; and if so, sutures might be useful. It was evident that the ordinary interrupted sutures could not be used, because they would have to be left in the spots where they were applied; but it would be easy to use the uninterrupted suture so that it might be withdrawn through the uterine cavity and vagina. It would only be necessary to leave both ends long enough, and not tie any knot. There could be no difficulty in doing this, if it were thought desirable; and it might possibly prove to be a means of lessening the mortality after the Cæsarean section.

Dr. Greenhalgh, said that four cases of Cæsarean section had occurred in his own practice, besides which he had witnessed three cases in the practice of others. He spoke, therefore, from some experience of this formidable operation. In two of his own patients, who had arrived at the full period of pregnancy, it was necessitated by extreme distortion of the pelvis; in the one resulting from mollities ossium who survived the operation three weeks, and then died from rupture of the transverse colon; in the other from rickets, who lived only four days. In both cases the children were born alive, and continued to live. In all the cases the uteri contracted shortly after the removal of their contents, more rapidly in those where the incision was made in the body, and less so in one case where the opening was effected in the neck of the uterus, on which account Dr. Greenhalgh did not approve of Mr. S. Wells' suggestion of bringing the cut edges together by sutures. He, Dr. Greenhalgh regretted that in more than one case the operation was not undertaken until much valuable time had been lost, and until after great and ineffectual attempts had been made to deliver, which placed the patients in a bad condition for any operation, and more especially for the one under consideration. He attributed our great want of success, as compared with our continental brethren to a want of attention to these less points. He emphatically expressed his opinion that no practitioner was justified in performing this operation with a view of saving the child where delivery could be safely effected by craniotomy. Still he considered that if any patient, who had had one or more children destroyed by craniotomy, desired from conscientious motives, after having had all the difficulties and dangers to herself and child from this operation placed before her by several eminent accoucheurs, to risk this operation, with a view to saving her child, as in one of Dr. Greenhalgh's cases, the practitioner would be fully justified in undertaking its performance.

Dr. Barnes rose to make one or two observations upon the case referred to by Dr. Greenhalgh. In the view of the case and the principle of treatment which guided Dr. Greenhalgh he quite agreed. He was, however, more disposed at first to persevere in attempts to deliver the woman by the natural passages. He was chiefly influenced in this direction by the fact that the child was premature. Had the child been of full size the idea of so delivering could not have been entertained. But he hoped that if a leg could have been seized and brought down the body might have been drawn through, flattened out between the tumour and the pubic bones; and that the tumour itself, which although very firm was not osseous, might yield a little. In this they were disappointed. It was impossible to seize a leg. The course at first entertained by Dr. Greenhalgh, and ultimately adopted, was proved by the post-mortem examination to be right. The suggestion made by Mr. Spencer Wells to sew up the wound in the uterus made in the Cæsarean section Dr. Barnes did not approve. He thought accoucheurs would prefer to rely upon the contractile property of the uterus to which they were accustomed to trust in the more ordinary emergencies of labor. The blood and other matters did not escape through the wound, but found a ready outlet through the cervix and vagina.

Dr. Graily Hewitt remarked that the case brought before the Society by Dr. Swayne was one which could not fail to excite a great amount of attention. There were two aspects under which it was necessary to consider this grave question — the decision as to the performance of the Cæsarean section, and which was likely to present themselves in active practice. The first class of cases were those in which the delivery of a live child in the natural way was impossible, and the operation was had recourse to in order to save the child. In the second class of cases, the operation was resorted to because delivery of the child was found to be impossible under any circumstances. With regard to the first class of cases, it was quite evident that the circumstance determining the decision would be the importance attached to the life of the child compared with that of the mother, respecting which it was well known that differences of opinion existed. This was a question which would probably still continue to be in some degree an open one. In respect to the second class of cases, in which the Cæsarean section was had recourse to for the reason that the fœtus could in no other way be extracted, he wished to make a few remarks. There were doubtless some cases in which the amount of distortion and narrowing was such that no operative attempts, however well directed, would succeed in bringing away the uterine contents; but be believed that some of the cases which had been thought hopeless, except by recourse to the Cæsarean section, would be found capable of being relieved by application of the cephalotribe. This instrument was as yet little if at all practically known in this country, but it appeared deserving of a trial, and was better adapted for breaking up the structures with which we had to deal than other instruments. He quite concurred in the observations which had fallen from Dr. Greenhalgh, as to the selection of the proper time for the operation of Cæsarean section. There could be no doubt that the operation was successful in proportion as it was undertaken early; this was shown by statistics. On the Continent the Cæsarean section was more frequently undertaken. Winckel had operated in thirteen cases, of which eight recovered; this showed what might be done with the operation under favorable circumstances.

Dr. Barnes would beg to intrude once more, prompted by the remarks of Dr. Hewitt concerning the cephalotribe. He had some knowledge of the application of this instrument. In the first case of Cæsarean section which he had seen, which occurred in Paris at the Clinique d'Accouchements twenty years ago, the cephalotribe had been strenuously used all night, yet the Cæsarean section had to be resorted to at last. The deformity was not greater than in this case of Dr. Swayne's, and there was more room at the sides of the aperture of the brim. In Dr. Greenhalgh's case, the application of the instrument would have been simply impossible. The cephalotribe was a bulky instrument; it took up a good deal of room where there was none to spare. He did not think the cephalotribe would prove of much service in diminishing the number of cases in which it would be necessary to resort to the Cæsarean operation.

Dr. Oldham considered it important to make the incision into the uterus as low down as possible, regarding wounds towards the fundus more dangerous than those towards the cervix. His experience of severe operative midwifery rather led him to think that Cæsarean section might be performed oftener than had been generally deemed right.

Dr. Swayne stated, in answer to the question from Mr. Spencer Wells, that no sutures were used to bring the edges of the uterine incision together; and that ~~entire~~ dependence was placed on the contractility of the organ for effecting that purpose. It was generally considered that sutures were not to be used on account of the danger of uterine inflammation. Mr. Coe, however, regretted that he did not give ergot of rye previous to the operation.—Dr. Swayne mentioned that just before the meeting his attention had been directed to the particulars of a case of Cæsarean operation which had been lately performed by Dr. Dyce, of Aberdeen. The woman operated on was a dwarf, and the case was in all respects similar to his own, except that the pelvis was slightly larger. In Dr. Dyce's case unsuccessful attempts had been made to extract the child before the Cæsarean section was resorted to. Dr. Swayne said that this case justified the course he had taken in at once advising the Cæsarean section, without making any previous attempt to deliver by craniotmy.—*London Lancet.*

A NEW METHOD OF AUTO-OPHTHALMOSCOPY.—M. Giraud Teulon lately submitted to the Academy of Medicine of Paris an instrument composed of two plane mirrors inclined one upon the other at angles of ninety-six degrees. The objective lens of the ophthalmoscope is placed before one of the mirrors, and before the other an ordinary ophthalmoscopic mirror. The left eye is then put in contact with the left mirror and the lens, the right eye with the ophthalmoscope or the mirror of the right side. A lamp is now placed on the right, as in ordinary exploration, and the auto-examination of the right eye is then very easy. M. Giraud Teulon has used the instrument upon himself with great success.—*Lancet.*

Foreign Correspondence.

BY PROF. CHARLES A. LEE.

HOSPITALS OF ROME.

THE great hospital of *Santissima Salvatore*, which I visited next, consists of two piles of magnificent buildings, situated on opposite sides of the street leading from the Colliseum to St. John Lateran. It was founded by Cardinal Colonna in 1216, and went under the name of St. Andrew until committed to the present confraternity, from which it derives its present appellation. This religious order, composed at first of twelve noble Romans, had charge of the chapel called *Sancta Sanctorum*, near the Lateran palace. The physicians in charge at the time were extremely civil to me, as they have been everywhere, and gave me every facility for seeing and investigating everything connected with the establishment. The hospital is chiefly for females requiring medical treatment, receiving patients of any religion, age, rank, or country. It has, also, a department for those suffering from sudden violent accidents, and a ward for aged females afflicted with chronic diseases. It has about 600 beds, and its register shows a greater majority than any other hospital in Rome, being upwards of 14 per cent. This high death-rate is doubtless owing partly to the insalubrious situation in which it is placed, and partly to its admitting so many aged persons afflicted with chronic and incurable complaints. The principal ward is an immense hall of large proportions, perhaps 300 feet long, and of proportional width and height; the windows, placed high above the floor on each side and frequently opened, allow of the most perfect ventilation. Its ordinary staff consists of two principal-physicians and one principal surgeon, with two assistant-physicians and two assistant-surgeons, besides its attendants and dressers, twenty in number. Regular visits are made twice in the day, but physicions are always about the establishment, ready to give their services when wanted. A religious order, called *Cruciferi*, distinguished by a red cross on the habit, attends to the spiritual wants of the patients. In 1821 a community of *Sisters of Mercy*, who had dedicated themselves to visiting the sick in another part of the city, were transferred to this hospital by Pope Pius VII. The same order had important privileges granted to it by Popes Leo XII. and Gregory XVI. The vows of poverty, charity, obedience, and hospitality, last only for a year, and are renewed at the end of that time; but when its members attain the age of forty they can make the vows perpetual. A large majority of the patients at the time of my visit were laboring under some of the forms of fever, malaricus chiefly, but many were cases of typhus and typhoid. The treatment does not vary essentially from that pursued in similar cases in our own country, except that depletion, especially by leeches is far more frequently practiced. A large fountain in the central court serves, not only for the preservation, but also for the breeding and multiplication of the leeches.

What strikes an American as somewhat strange is to see so many religious moving about from bed to bed, bringing food or drink to the patients, and soothing and comforting them by constant attentions, kind words, and spiritual ministrations. It is not uncommon to find patients in this hospital of very great age, several between eighty and ninety, some between ninety and one hundred, and not unfrequently centenarians. Two wards in this hospital are devoted to cases of tuberculosis or pulmonary phthisis, the average age of the patients being apparently between twenty and thirty. As this disease is universally regarded here as *contagious*, they are never mixed up with persons laboring under other diseases, but have separate rooms or buildings assigned them. Most of these cases are brought to the hospital late in the progress of the disease, many in the last stages, often probably from no other reason than that they may have the certainty of enjoying the consolations of religion in their dying moments.

One great recommendation of this noble institution is, that admission is freely granted to all who apply; no restriction, no red-tape, no certificate from a director or recommendation from a subscriber is necessary, as with us. The doors fly open to all who wish to enter; no preliminary examination even is required. Here is the patient, there a bed waiting for him; no hope delayed to make the heart sicker which was sick before. The religious, including nuns and priests, reside within the building, each having their own convent. The expense of supporting a patient here is about twenty-five cents per day. Once a year, on a particular Sunday, a grand procession of the Blessed Sacrament issues from the adjoining Church of St. John Lateran, and, crossing the square, passes through the wards of the hospital, the Sacrament being borne by the Cardinal Arch-Priest of the Basilica, the Pope and all the cardinals assisting. The object of this procession seems to be to have a salutary effect on the sick and dying, and cheer them in their afflicted condition.

Besides the public hospitals at Rome already mentioned, there are several small institutions of a more private nature belonging to different nations and corporations; the Germans, Spaniards, Portuguese, Lombards, Florentines, and Lucchese, have each their separate hospitals. When the late Chevalier Bunsen resided in Rome as Prussian ambassador, he founded a hospital on the Monte Caprino, near the Capitol, for poor Protestants. This is supported by private subscriptions, and such of the patients as are able, pay a small sum for their support and medical attendance. The hospital is under the protection of the Prussian Legation, near to which it is situated. The sick ward forms a floor in a large building overlooking the Forum and the Palatine. Murray speaks of it as well deserving the support of Englishmen who visit Rome, "as the only one where poor British Protestants can be received without being subjected to the persecutions of the friars and attendants in the other hospitals, to bring about their conversion to Romanism."

From a careful examination of the subject I am satisfied that there are few, if any, capitals in Europe where the hospitals are more numerous in proportion to the population, constructed on a grander scale, or endowed with more princely liberality, than in Rome. The annual endowment of these establishments is no less than 260,000 dollars, derived from lands, from grants, and from the papal treasury. Formerly administered by separate confraternities, the hospitals were placed by the French government under one general board as in Paris, from which the best results were obtained; but of late years the ancient system has, in some degree, been restored, each establishment being placed under a separate direction, with a prelate at its head. Such a system is liable to abuses, especially jobbing, as we know from our own hospital experience, but it is difficult to hit upon any plan of management which is not open to the some objections. Formerly they were ill administered and badly managed in their domestic arrangements. Considerable improvements have been introduced of late years, but especially since 1849, from diminishing the interference of the clergy and friars, and limiting it to its purely spiritual duties. The late accomplished Princess Doria made great efforts to introduce the French Sisters of Charity into this city, and succeeded to some extent, although opposed by many of the ecclesiastics connected with these institutions. It would not be just, perhaps, to place the Roman hospitals before those of Florence or Milan, but it is difficult to say wherein they are inferior. It is certainly a somewhat remarkable circumstance that, with such a wide field for anatomical and pathological investigation, the medical school of Rome is behind all the others in Italy, and has not produced a really great man, or even a medical work of superior merit, during the present century; nor is it less surprising that in this great city, the real capital of Italy, there is not a single medical periodical published, nor is their a medical society or scientific association of any description in this enlightened city of nearly 200, 000 inhabitants. I have inquired of native Romans the reason of this, and have been answered that no secular societies or organizations are permitted here on account of the danger of their being converted into politicual associations and used for revolutionary purposes. Whether this be the true reason or not I do not pretend to decide; but those who have resided here for some time as medical practitioners from other countries assure me that it is the true reason. Great credit, is however, due to the present Pope for the deep interest he has always manifested in the hospitals, prisons, reformatories almshouses, lunatic asylums, and educational institutions, in Rome. He has made additions to many of the hospitals from his own private resources; some he has entirely rebuilt. He has introduced many important reforms, has suggested and has carried out several new and improved arrangements, and has watched over them with paternal care and solicitude. He has personally visited and inspected every hospital in Rome, and that too at times when his visits were wholly unexpected, so as to learn from his own observation their actual condition. During the prevalence of cholera he fearlessly went among it, visited the cholera hospitals, cheered the patients, encouraged the physicians, and nurses, and did much to allay the panic and dread of the disease universally prevalent, and dispel the idea of its contagiousness. If Rome is far behind other cities in many things, as she undoubtedly is, some allowance should undoubtedly be made for the present pontiff, who, with the best intentions and the most benevolent disposition, is hampered by what he and his counsellors consider the political exigencies of the times.

The *Lying-in Hospital* of Rome, *San Rocco*, is connected with the Foundling Hospital, and consists of one great hall and several chambers, one of which is appropriated to births. It was originally established in 1500, with fifty beds, partly for medical and partly for surgical cases; it was, however, changed from its original destination and converted to its present purpose by Clement XIV., in 1790. It has at present from thirty to forty beds, each bed having a curtain and screen, so that the occupants are not seen by the others. All who apply are received without any questions being asked; some with their faces covered with vails which they are not required to remove. On the register they are only known as guests at a hotel, by their number. No one is allowed, unless by special permit, to enter the hospital, except the physicians, nurses, and attendants. Many are received at a considerable period before their confinement, so that their condition may not be suspected by their friends. If able to pay a small sum they have superior accommodations; and when they are well enough to leave the institution they pass out by a passage in the rear, through an unfrequented street, and thus escape all danger of detection. If they wish to reclaim their children at some future time, some distinguishing mark is put upon them. But the children generally are sent to San Spirito. Usually patients are received only a few days previous to delivery, and remain on an average about one week after confinement. It is supported partly by its own revenues and partly by the State, like the other public institutions of Rome. Whatever objections may be raised by some against the secret policy pursued in this institution, I am satisfied both of its expediency and wisdom, as it leaves open a path to moral and social redemption which a different policy would close forever. It is a course dictated alike by wisdom and humanity, and no one can justly charge its managers or the State with encouraging vice or immorality, for they act on the well known and admitted principle that the great object of human laws, as well as human institutions, is the reformation rather than the punishment of the offender. A woman may recover character and self-respect if she has a fair chance to make the experiment; but what chance has she who is once known and publicly branded as unchaste and the mother of illegitimate offspring, to say nothing of the wretchedness entailed on the child, or the temptations to infanticide?—*American Medical Times.*

ORIGINAL PAPERS.

Surgical and Medical Cases, from the Case-Book of David Wooster, M. D., etc., late Surgeon of Volunteers.

1. Case 1st.—Geo. McParlin, æt. 26; height, 5 feet 6; weight, 140 lbs., on the 6th of August, 1862, while leading a mule up a deep ravine, was shot by an Apache.

The wounded man ran about 300 yards, yelling all the while so loudly that he was thrillingly heard in the fortified camp, 1,000 yards distant, and then dropped down to rest an instant, but immediately rising again, ran about 100 yards further and fell from fainting.

2. Within ten minutes from the report of the Apache's gun I saw him and had him placed on a stretcher and conveyed to the hospital tent.

3. When I first saw him he was ghastly pale and covered with beady perspiration. His clothing, consisting only of pants and white flannel shirt was covered with blood in front. There was a bullet-hole in the right shirt-sleeve, above the elbow, and another in the shirt below the nipple of same side. Air rushed in and out of the chest wound at every respiration, and he seemed like one suffocating. I had the shirt folded over the wound and G. held it down with his own hand until we reached camp. With this protection he breathed much more easily.

4. I find the front wound in the chest to be 2½ inches directly below the right nipple, 4 inches to the right of the centre of the lower end of the breast-bone, between the 6th and 7th ribs. The other aperture in the chest is 4½ inches outwards from the first, and 5½ inches from the same nipple, and between the 7th and 8th ribs. The shot, in passing, fractured the 7th rib, went under it, wounding the lung, came out between the 7th and 8th ribs and passed into the right arm above the internal condyle of the humerus directly over the internal border of this bone, under a bridge of integument about an inch wide, and passed out, doing no farther injury. The wound of the arm being of no consequence, will not be alluded to again.

5. *Progress of the Case.*—Three hours after closure of chest wound with lint wet with cold water, and a turn of roller, G. complains of imminent suffocation. The lint is raised and some blood escapes without giving relief; pulse extremely feeble and thready. (He had a grain of morphia on reach-

ing camp.) I now give him an ounce of alcohol (no other spirits in camp) in water in the course of twenty minutes. Pulse more distinct, 130; dyspnœa great but not increasing, and looks extremely anxious; 30 drops tincture veratrum virid. every hour until he complains of nausea. Second dose, pulse has fallen to 80; pulse did not descend until the 6th dose, which caused vomiting and depressed the pulse to 65. After the 3d dose of veratrum the dyspnœa ceased to be troublesome. On vomiting, which I did not intend he should do, dark blood gushed from the front chest wound in jets the size of a goose-quill several times, and then stopped of its own accord. Closed the wound more firmly.

August 26th.—The treatment was anodyne, diet sparing until the 10th day, then nutritious. He has had alcohol and water daily from the first. He now walks all about the fortifications. The fractured ends of the rib are felt an inch apart just within the front wound. Have removed at different times several small fragments of rib with case forceps.

During* first five days he spit blood constantly — at first red and frothy, then darker, and finally fœtid and mingled with pus and mucous; finally pus predominated, streaked with blood, very fœtid. He constantly begs for "something to cut the phlegm," and always has a short, frequent cough.

September 8th.—G. walks all about the grounds, but has but little strength. He looks anæmic and emaciated; feels great uneasiness and tightness in his right side about and below the nipple; percussion gives flat sound; auscultation verifies solidification in the same location.

Wounds all closed, except the one in front, which furnishes bone pus only, and is a mere small fistula, leading no farther than the condensed pleura; minute bone fragments escape from the fractured rib. Appetite and digestion good, but he remains feeble and "gets out of breath" quickly on walking.

5. September 17th.—I leave Apache Pass this morning for Fort Yuma, and George comes under the care of my successor, Dr. Watson, Act. Ass't Surgeon of Volunteers.* George is much the same as at last note; is exceedingly wanting in fortitude; says he shall die; complains unceasingly.

Fort Yuma, Nov. 20th.—A letter from Tucson, Arizona, informs me that George is dead. Captain —— sent him some time early in November, under charge of ten men, to Tucson — distance 120 miles — conveyance, freight wagons — the best the Captain could do.

From Dragoon Springs to Tucson, a distance of seventy miles, this small party was pursued by a party of Apaches, day and night. The constant excitement and sudden starts which George suffered during these three days — the party was only three days going from Apache Pass to Tucson — with the jolting of the six-mule wagons, frequently driven at fast trotting speed, were too much for his feeble health and imperfectly healed lung. He was not removed from the wagon in the whole three days and two nights of the journey. When taken out at Tucson he was scarcely able to speak, and died in a few minutes thereafter. It is to be regretted that the citizen physician employed at Tucson made no post mortem of this interesting case.

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* Dr. Watson was recently assassinated by a Navajo Indian near Santa Fe, New Mexico.

6. It will be borne in mind that this was a gun-shot wound of a lung, and yet the patient was not bled, neither did he die of hemorrhage in consequence of this intended omission.

7. I will take occasion here to state that recovery from gun-shot wounds in the chest is extremely rare. The most astonishing case on record — that of General Shields at Cerro Gordo — happens, by no one's fault, to be a mistake. The fragment of shell in his case never entered the cavity of the chest at all. Dr. Hamilton, the distinguished author of "Fractures and Dislocatious," had his information from the accomplished and intelligent Surgeon Wright, U. S. A., when he published his manual of military surgery (by the way, a very useful work) at the beginning of this war. Dr. Wright is certainly mistaken, simply because he did not have the opportunity to make a careful diagnosis in the case. Dr. Wright would be the first to acknowledge his mistake should he ever hear the statement of General Shield's attending Surgeon on that occasion.

CASE II.

Abscess of Liver—Death—Autopsy.

FORT YUMA, Dec. 29th, 1862.—Jones, private 12th Infantry, Cal. Vols. shot off right index finger with a pistol at Tucson, on 23d of September, Dr. McKinney, Act. Asst. Surgeon at that post, made a smooth amputation of the finger just above the second joint with chisel and hammer, there being no surgical instruments at the post. [It may need explanation how there happened to be no surgical instruments at an old military post, important and distant from supplies as Tucson. Gen. James H. Carleton, U. S. Vol., proclaimed himself Governor of Arizona in June, and proceeded to collect a hospital revenue from licenses to gambling houses, drinking saloons, etc. In July this fund had reached the considerable sum of $3,000, which Carleton not only carried away with him into New Mexico, but he also took all the cooking utensils of the hospital, not leaving even a coffee-pot or frying-pan, and left not even a pocket case of surgical instruments or a tooth forceps, nor a dollar of hospital fund, and this deficiency was not supplied until the middle of the following September, to the great detriment of efficient hospital service.] In due time the finger-stump got well and Jones received his discharge. *En route* towards this post in November he was taken with fever and lay twelve days at Vidette Station without medical attendance, when he was brought on to this post in a state of insanity. When he arrived, December 15th, I found an immense tumor in the epigastric region, tilting up the xyphoid cartilage and the free margin of the ribs on both sides. The whole of the abdomen is tender on percussion and exceedingly so in the right inguinal and right lumbar regions. No sign of acute inflammation; pulse, 90, feeble, soft; temperature of the skin normal; tongue, pale, moist and furred. Patient partially insane; answers questions as to time and place coherently and correctly; says a week ago had chills and fever and took quinine, which he brought with him; says he never felt better: "I died yesterday and was born again this morning, and the Jones you now see is a new man, well and hearty, but tired."

Diagnosis.—Enlargement of liver; abscess of left lobe; enteritis subsiding.

Prognosis.—Death within three or four days.

Treatment.—Comp. Spts. Æth. and of Ext. prunus Virginian. Port wine and water, ad. lib.

Dec. 16th, 8 A. M. Patient rested comfortably. Continue port wine and order chicken broth, and three drops of muriatic acid after eating, three times a day.

To verify the permeability of intestine, give grs. x. calomel on tongue, followed in six hours with half oz. of ol. ric.; effects four evacuations, which becoming watery, are arrested with gtt. x. tr. opii, repeated once.

Dec. 18th, 10 A. M. At his earnest request, and to afford temporary relief, puncture abscess in the linea alba, with two line trocar. Odorless homogeneous pus flows in a stream, size of canula. Introduce a large trocar, and discharge eighteen ounces by measure, which at first is smooth and yellowish white, then more or less mottled brown, and curdy; withdraw sheath of trocar, and insert No. 10 gum catheter, and through this pour into the abscess cavity fourteen ounces of warm water, and by lowering nozzle of catheter lower than base of abscess, draw off fluid, catheter acting as a syphon; this again; when the abscess seeming sufficiently cleansed, the catheter is secured and allowed to remain as a drain.

At 9 P. M., catheter being found inefficient, on account of becoming clogged with shreds of broken down tissue, is removed, and the wound covered loosely with cotton wadding. After this, the abscess is cleansed by my steward by means of a common piston syringe, used as a pump and injector. Solutions employed in cleansing abscess are chlorinated soda and water, and weak dilutions of tincture of iron. The treatment from this time till death was bark, iron, an occasional anodyne, and muriatic acid to aid digestion, brandy, whisky, wine, and nutritious diet. At the expiration of a week after puncture he seemed much better. He could sit up for hours without fatigue, and walk about the ward without difficulty; he was perfectly and uniformly sane; his appetite tolerably good, but digestion always imperfect. Almost every day I had to resort to tanic, acid, chalk or tr. op. to arrest a serous diarrhœa, and then to give hydrochloric acid after a meal to aid digestion, and ext. prun. virgin. to relieve the sense of weight in epigastrium an hour or two after taking even an ounce of nourishment.

27th. 8 A. M. There is a surprising alteration in the expression of his countenance; he has a cadaveric look. Says he feels very well, but much weaker. The nurse says that soon after midnight he was seized with a "shuddering convulsion," and that he groaned like one with the "nightmare." Patient says he lost consciousness during the night while awake, and when he came to himself, he found his strength was gone. I observed he was hiccoughing. This fatal sign I was unable to subdue, except for intervals of an hour or so. His mental faculties were undisturbed up to the last few moments of life. After his wrist was pulseless, he related to me in slowly spoken but well chosen words, how he had spent his life in California, etc. This was at eleven P. M. He died at half-past twelve, A. M., on the 28th.

28th. *Autopsy.*– At ten A. M., assisted by Dr. Anabar, I examined the cadaver. Heart and lungs normal. No tubercles, no old adhesions, no infiltrations or solid points in the lungs. The convexity of the right lobe of the liver extended as high as the lower margin of third rib. The thin margin healthy in appearance—of the left lobe extended into the left hypochondriac region so far as to overlap more than two-thirds of the spleen, between which and the former there was a layer of exuded gelatinous lymph. The hypertrophied left lobe contained a ragged walled cavity of an abscess, occupying nearly the whole bulk of the lobe. The abscess had no remains of a cyst with proper walls, but its parietes were the substance of the liver itself, soft and brittle, and hanging in shreds, as long and thick as one's little finger. The right lobe was a huge mass, itself large enough for two livers. On slicing, it was found to be everywhere of a pale tan color, and so brittle as to rub down easily under the fingers. I could not lift it from the body with the utmost care, without my fingers sinking into the substance of the lobe and tearing out. No abscess in the right lobe. The peritoneum was thickened and soft-ened in many places; portions of the duodenum were so pultaceous as to be easily rubbed to pieces between the thumb and finger, from all of which it is obvious that the proximate cause of death was inanition.

CASE III.

Fissure of the Perineum—Suture Cure.

> "Those fissures of the perineum which stop in front of the anus, without including the recto-vaginal septum, do not disturb the functions of the rectum, but they favor the descent of the uterus, and may be attended with unpleasant consequences in respect to the conjugal relations and duties. It is allowable, therefore, to undertake their cure, when this is desired by the woman."—VELPEAU.

The following case, which I operated on August 16th, 1863, belongs to the catagory mentioned in the qnotation.

Mrs. ———, a married lady of San Francisco, aged about thirty-five, had suffered from the consequence of a perineal fissure for many years, and though often desiring operative relief, had been put off from time to time by her medical advisers, with assurance that the operation was unnecessary. While I admire the principle in operative surgery which objects to operations merely to gratify the caprice or whim of a patient, I cannot think that so serious a departure from physiological perfection and adaptation, as any considerable fissure of the perineum constitutes, should be neglected, when it is so certainly and easily cured. There is really nothing difficult or dangerous in this operation, and it requires no special ability or apparatus for its treatment, whether the fissure be complete or incomplete, and there is no reason in the world why so many women should be suffering inconvenience from this injury. The danger attending the operation is absolutely null with even the most ordinary after care. The time required for the cure of a complete fissure involving the sphincter ani will not exceed two weeks.

Assisted by a medical friend and some lady friends of my patient, the latter was brought under the influence of chloroform. and secured as for lithotomy. Beginning at the posterior commissure of the fissure, the mucous membrane including a line or two of true skin, was removed for an inch and a quarter anteriorly, and for the breadth of about nine lines along the sides of the vaginal walls, and from the posterior column. The denudation extended a little farther anteriorly than the original fourchette. Three deep ligatures were inserted, the middle one including the posterior column of vagina; these ligatures were tightened on caoutchouc quills, half a dozen subcutaneous stitches completed the closure of the fissure accurately. Cold water dressing and securing apposition of thighs with a turn of roller, completed operation. At the end of six hours, the bladder was emptied with catheter. The extreme sensitiveness of urethra compelled me to abstain from the use of the catheter the following day, as it caused cystitis and consequent precipitation of phosphates. This complication was met with a large dose, much diluted, of gallic acid, under which the urine became clear. The gynæceia appeared the third day, having anticipated two weeks. This still farther diminished the chances of complete success; but by free ablutions with tepid water, all went on well, and the fifth day, on removing stitches, the union was found perfect, the new perineum being much thicker than that of a woman who has already been a mother. On the tenth day she walked out, and has continued as well in respect to the condition of the parts operated on, as in her youth.

CASE IV.

Fracture of the Right Femoral Neck—intra-capsular—Delayed Union.

Mr. Cameron, æt. 35, applied to me July 2d, 1863, to treat him for injury of hip. Some four months previously, he was driving a stage through a mountain defile down hill, the horses became unmanageable, and he was compelled at all risks to run the stage into the bank, while they were going at full speed. He says' his foot struck against the bank with great force, and bent his whole right lower extremity backwards and nearly to his back. He had been unable to stand on that limb from the day of the injury up to the day he visited my office. On examining him, I found the great trochanter of the affected side further upwards and outwards than that of the left. The head of the thigh bone was presumed to be in its socket as it could not be found without. The limb was one inch and a half shorter than the other, neither inverted nor everted; the tendency of the limb when pendent was to slight eversion. Manipulation of the limb caused great pain above the trochanter; the movement of the hips were much more limited than in health. He had been treated four months for a sprain of the hip, and the shortening of the limb had been attributed to contraction of the muscles. To remedy these conditions, he had been recommended to take as much exercise as possible on and with the limb, and employ frictions by stimulating applications about the joints; this treatment he had followed since the injury. I diagnosticated fracture of the neck of the thigh bone and delayed union. I proposed to give him a useful limb, by causing the fracture to unite at the expense of temporary and perhaps permanent restriction of the movements of the hip joint with less than an inch of shortening of the extremity—in short, to so far restore him that he might walk conveniently by the aid of a cane. When he applied to me, his limb was worse than useless· and he could get about with difficulty on two crutches, with a pendulous extremity. The result is soon told: rest was enjoined; the immovable dressing applied first with starch bandage, then by means of gutta percha apparatus, moulded on a plaster cast of the injured extremity. At the expiration of six weeks, all dressings were removed, and the consolidation was firm. The injured extremity is now not quite an inch shorter than the other and the patient walks with a cane, with daily increasing facility and firmness. He can kick with the foot of the injured leg as well as before the injury. He still has pains in the whole course of the crural and sciatic nerves, and their distributions which will no doubt contiuue until the nerves shall become accustomed to their slightly altered relations.

CASE V.

Mr. Year, a victim of the Ada Hancock explosion in April, 1863, had his left thigh broken in the middle third. He was treated in the military hospital at Camp Drum more than three months, and then came to this city and was placed under my care by his friend Mr. Yokum, of Alameda county.

The fracture was not united by bony union, and the limb was perfectly pendulous below the fracture. The os calcis was carious to the depth of three or four lines, and the knee anchylosed.

On the 28th of August, assisted by Dr. A. S. Baldwin, the patient was placed under chloroform, and the ligamentous union forcibly broken up, and the ends of the fractured bone rubbed together, until bony grating was distinctly appreciable by both Dr. B. and myself. The knee joint is partially flexed. The camphorated immovable dressing is applied immediately. On awaking, patient feels no pain, and says his leg is easier than it has ever been before. I will here state that he declares he has not suffered a moment's pain in the extremity since the application of the dressing. As soon as the bandage had hardened, it was opened from the hip to the toes, a sufficient section removed, and the case thus formed, adjusted by a few turns of roller, and thus it was allowed to remain five weeks. The patient was constantly about on crutches during all this time, and lay on either side in bed. I should say that I gouged out the carious bone from the os calcis, cauterized with potassa fusa, and directed cold water dressings, under which at the expiration of the five weeks the sore of the heel is nearly cicatrized. The patient has a good limb, with a trifle more than an inch shortening.

CASE VI.

On the 2d of October instant, I trepanned (assisted by Drs. Carl Precht and Trenkle,) Mr. Henry Hayne, brewer, æt. 40, of Third street, San Francisco. Mr. Hayne fell from a wagon and fractured one of his right ribs, wounding with its ends the corresponding lung, and receiving such a blow near the right parietal protuberance as to cause unconsciousness and paralysis of the left half of the body. I took from his arm ten ounces of blood immediately after the injury. Under the bleeding the extinct pulse became perceptible at the wrist, and then quite full, and then began to fail, at which instant I had the bleeding arrested. He was now in a profuse perspiration, but without consciousness or motion, the whole body flaccid and venous colored. He was now removed to his own house, where I administered enemas, and poured down his throat a few drops of brandy in water. Results negative. There was now manifested a few jerking motions. It had been one hour and a half since the injury. Dr. Precht was called by some friend of the family to consult with me. He anticipated me in suggesting the trephine. I readily concurred with him, and as soon as I could get instruments from my office, began the operation—it had now been two hours since the injury. I am particular about all this, as I believe the benefit of the trepan depends very much upon its being employed directly after the injury; the sooner the better; for if there is already unconsciousness, there will be no increase of shock. I made a crucial incision, and applied a nine line trepan. Drs. Precht and Trenkle helped me in the labor of the operation. The whole circumference of the trepan crown penetrated to the duramater at the same instant, and so that the disk of bone which had been cut out moved freely with the cerebral pulsations. This had no sooner been done than the patient repeated a word spoken, showing that he could hear, and immediately after answered questions. The trepanning in no degree relieved the paralysis, it merely restored consciousness, and allayed the convulsive movements. Up to this date, (Oct. 10th,) eight days after the operation, his consciousness has been unimpaired. He has been spitting blood since the injury daily; it is darker now and less abundant than during the first days. This morning, at 9 A. M., I find the lower lobes of the right lung inflamed; respiration short and labored; respiration in right lung loudly puerile; pulse 125 for the last twenty-four hours, though he has taken infusion of digitalis, nitrate of potassa, and morphine for the last week. This morning, on consultation, I suggested salines, denarcotized anodynes, whisky, beef juice, and ammoniated baths.

Trepanning restored consciousness, and gave the patient ability to arrange his business, which otherwise he could not have done. Without the trepanning, he would have died in the first forty-eight hours.

Oct. 16. Mr. Haine died. No post-mortem allowed.

San Francisco, October, 1863.

* * *

DANTE.—The *Patrie* has made the notable discovery that Dante, the great Italian poet, was an apothecary.

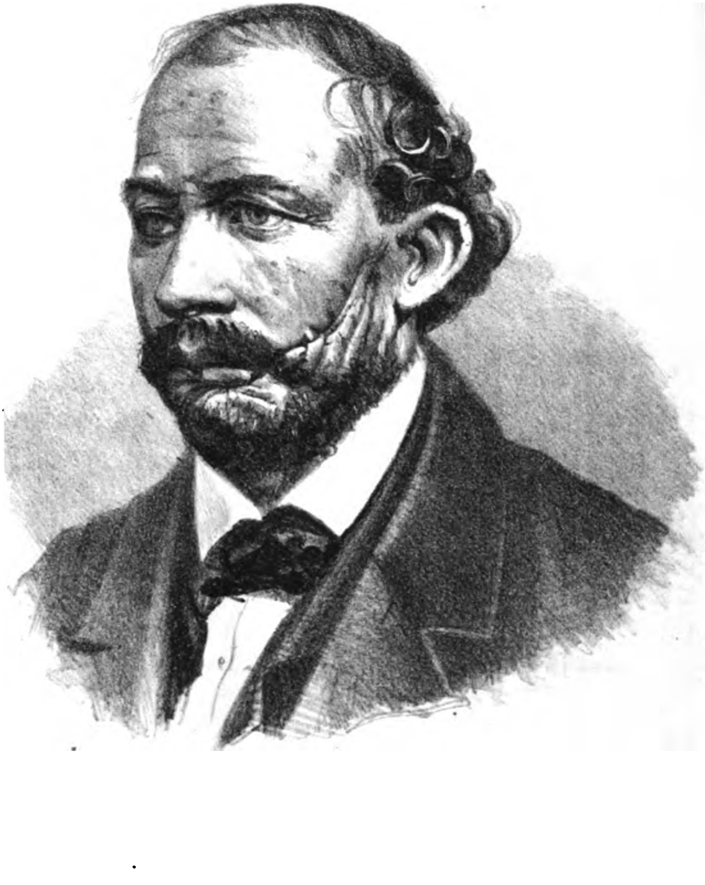
Cheiloplastic Operation.

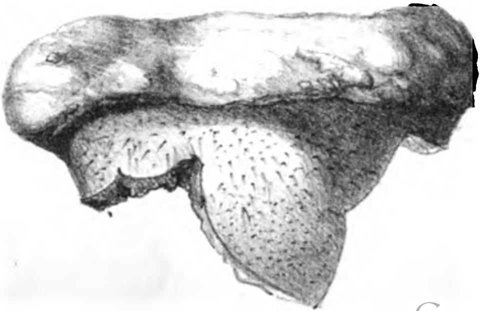
BY H. H. TOLAND, M. D.

ALEXANDER DUNCAN, aged 43 years, and apparently in good general health, had been suffering from disease of the lower lip for more than two years, when he applied to me for assistance April 1st, 1863. The entire lip upon its superior surface was ulcerated and enlarged, and on the left side the induration extended to the chin, which is apparent by referring to the plate, which gives a correct representation of the part removed. Having been treated in Victoria and elsewhere, and finding no improvement to result from the remedies prescribed whilst under my care, I determined to remove the diseased tissue, and endeavor to supply the deficiency by taking sufficient integument from the side of the face for that purpose. The operation was performed May 10th, 1863, and after removing the entire disease, the wound on the chin was closed by the interrupted suture, and a flap was then raised from the side of the face sufficiently large to supply the deficiency, and secured as before described in similar operations. Union by the first intention occurred between the inferior surface of the flap and the part with which it was brought in contact, but upon the right it not only failed but sloughed considerably, which for a time rendered the case rather unpromising. After the union upon the inferior surface was sufficiently firm, the pedicle was divided and properly adjusted at the angle of the mouth, and the wound of the cheek closed. When that part of the operation was completed, the flap was united to the right side by silver sutures, which were allowed to remain until the cicatrix was sufficiently firm to resist the tension resulting from the deficiency produced by the extensive slough, which followed the first operation. The lower teeth, which were all exposed, are now concealed, and not much deformity will exist when sufficient time has elapsed for the increased thickness which always follows this operation to subside.

The photograph was taken a few days after the sutures were removed, for the purpose of exhibiting how speedily the skin becomes increased in thickness after such operations, as well as to demonstrate the necessity of applying pressure until the circulation is perfectly established, in order to enable the integument transplanted to present a natural appearance.

PLATE TO DR. TOLAND'S PAPER





On the Pathology of Poisoning by Alcohol.

BY A. P. HAYNE, M. D., SAN FRANCISCO.

HAVING in a recent number of the Pacific Med. and Surgical Journal offered a few remarks upon the treatment adopted for the cure of Delirium Tremens at the "Home for Inebriates," it appears necessary to say a few words in conclusion upon the pathology of the disease. In doing so, we prefer to adopt the heading of this article, as it seems to more fully indicate the *nature,* as well as the *cause* of the disease in question. We use the term "poisoning," in the *fullest acceptation* of the word, and in the same sense that it is generally used when applied to Arsenic, Strychnine, Opium, Iodine, or any other powerful agent whose effect is to shorten or destroy life. "That the state of *intoxication* in all its various forms and modifications is, (literally speaking,) one of "poisoning," we shall attempt to show; and by the rapid absorption and presence of alcohol in the blood, endeavor to point out the cause of those pathological changes, which like the effects of other well known poisons, end in the destruction of life. The extent and degree of this poisoning depends, (as with other agents) upon the *quantity* and *concentration*; and the rapidity with which it acts, is doubtless modified by the different resisting powers of the constitution.* If we are correct in this enunciation of principle, it becomes a highly interesting point in medical pathology, to study the nature of the various primary, as well as secondary phenomena, to which this species of "poisoning" gives rise, in order to understand fully, and have a correct idea of those pathological conditions which are found by actual observation to result from its continued or inordinate use. "The poisonous effects of alcohol," says Dr. Carpenter, "will of course vary with the quantity of the poison absorbed, and hence there has been generally three stages or degrees described by writers upon this subject." The *first,* consists of a state of "mental exaltation." followed usually by a corresponding "state of depression." This constitutes the mildest form, and is usually met with in those given to periodical intoxication. Dr. Carpenter considers this as rather a state of "perversion of the mental faculties," than as one of simple "exaltation." However this may be, there can be no question that a sufficient quantity of the deleterious agent has been taken up, by absorption, to materially disturb the healthy functions of the brain. If the 'poison' be used in larger quantities, or in a more concentrated form, we have the *second* stage, or poisoning accompanied with "sensorial disturbance." This stage is characterised by a "loss of control over the reasoning faculties," and is generally accompanied with more or less "hallucinations and muscular tremors;" showing that a sufficient amount has entered the circulation to act directly, (not only upon the brain,) but the nerves of voluntary motion. If taken in still larger doses, or continued for a longer period, we have the *third* stage, characterised by "diminution or entire suspension of cerebral or sensorial functions." When the latter takes place, death is ushered in by a "state of coma," there being an almost entire want of "æration of the blood," and generally "tetanic spasms."* When however the amount of poisoning is not sufficient to produce an *entire suspension* of the cerebral functions, we often find a fatal result occurring in the form of "asphyxia." (Ibid). Such being the general features of these three stages of "poisoning," let us turn for a moment to the pathological conditions observed. It is not often that the first stage affords an opportunity of direct observation, as the efforts of nature are generally sufficient to eliminate the poison. In the second however the opportunity is sometimes afforded, and in the third frequently. In investigating this subject, the first question which presents itself is, what effect does alcohol produce upon the healthy living tissue? The experiments of Liebig, Percy, Ogston, Carpenter, Humbolt and others, have thrown much light upon this subject. The first physical effect, we are told, is a "state of excited circulation," followed by a "retardation," and a "dilated condition of the vessels."† This effect is produced, however, only when alcohol is applied in a "very diluted form;" for if applied in a less diluted form, the first stage is not observed, but a "retardation of the circulation at once takes place, accompanied with a considerable dilatation of the vessels." (Carpenter p. 28). If applied in a still stronger form, this retardation amounts to a "complete stagnation" and if pure, or the contact be prolonged, the death of the living tissue follows. (Sec. 2, Ibid.) These then are some of the effects of alcohol upon the circulation of healthy living tissues. Let us now see what are its effects upon the tissues themselves. Liebig and Carpenter both observe that the first effect on animal tissues is the production of a "state of *corrugation*." This is due says the latter, "to the difference in the capillary attraction of animal tissues for alcohol and water." Thus Liebig found "that 9.17 grammes of fresh bladder saturated with water, (in which were contained 6.95 grammes of water and 2.22 of dry substance,) when placed in forty cubic centimeters of alcohol, weighed at the end of 24 hours 4.73 grammes, and had consequently lost 4.44 grammes." (Motion of Animal Juices. p. 11.) Or in other words says he "for *one volume* of alcohol retained by the bladder, rather more than *three volumes* of water had been expelled from it." (Carpenter, p. 25.) But there is another effect no less striking than this. This effect is a *chemical* one, and consists in the power of alcohol of "coagulating soluble albumen." We all know that albumen in a soluble form, is one of the most important elements of the blood, and that it performs an active part in the process of nutrition. Now it will readily be seen how the effect of alcohol, in retarding the coagulatility of albumen, "must interfere with the vital process of fibrinization; for although the one be a physical and the other a vital process, yet as the tissues, and the general process of mutation is developed at the expense of the fibrine, anything which impairs its organizability must necessarily affect the general nutritive process." (See note to Carpenter, Chapter 1st, Sec. 6.) Dr. Percy's experiments may be cited in proof of this. He found that when an animal was killed by the injection of alcohol into the blood-vessels, "that the blood remained fluid after death, or coagulated but imperfectly;" hence, says he, "we find a confirmation of the inference, as regards that peculiar condition of the system which results from excessive indulgence in alcoholic potations, of which, imperfect elaboration of the fibrine is one of the special characteristics. "There is still, however, another effect, which alcohol produces upon the blood, which is no less striking; we allude to the alteration in the blood corpuscles. "When blood which contains alcohol," says Dr. Carpenter, "is examined under the microscope, it is perceived that the red corpuscles shrink, and that a considerable part of their contents escapes, and becomes mixed with the liquor sanguinis. Now, although the peculiar functions of the red globules have not yet been precisely determined, there can be no doubt that they are among its most important constituents, and there is strong reason to believe that they are subservient on the one hand to the respiratory functions, and on the other, directly or indirectly, to the elaboration of the plasma, or organizable material of the blood." With these facts before us, we are better able to understand the most striking phenomena in alcoholic poisoning, viz: "*its peculiar affinity for the brain and nervous system.* That there is an elective power or affinity between alcohol and the nervous substance none can deny. It is a known fact, well established by experiment, that this species of poison will "seek out the nervous matter, and blend itself with it, just as other poisons are known to localize themselves in particular organs, or parts of the same organ." That there is also an elective affinity between *certain parts* of the nervous system and each of the three degrees or stages of poisoning we have described, is no less certain. Thus we see, (and observation has proved), that the "cerebrum contains more or less alcohol in the first stage;" that the "ganglionic system" is most impregnated in the second, and the "medulla oblongata," and "spinal cord," in the third. (Ibid, Sec 20. p 37.) Now these facts correspond precisely with what we should expect from the external symptoms furnished by these different stages of poisoning. When the intellectual faculties are simply impaired or perverted, we find the poison in the cerebral mass; where there is a still greater disturbance of intelligence, and loss of control over muscular movements, in the sensory ganglia; and when we have tetanic spasms, impaired respiration, and dilated pupils, in the medulla oblongata and spinal cord. (Ibid, p 39.) That this is one of the most striking phenemena in the pathology of poisoning by alcohol, is too well established to be longer denied. Hence we are enabled to draw much valuable aid in the selection of appropriate remedial agents. In these efforts, we are often much assisted by nature, for here, as in every other species of poisoning, there is an effort made to eliminate, or get rid of, the poison. In "poisoning by alcohol," the skin and kidneys are the chief channels of escape, assisted by the liver and lungs. By these counterbalancing influences we often see the fatal effect warded off for a series of years, but most generally, by the impairment of the functions of one, or all of these organs, or the presence of a too concentrated amount of the poison, a sudden and fatally overpowering effect is produced upon the nervous system, which extinguishes life, with as much certainty as the most fatal and violent vegetable or mineral poison. We have passed over "the depressing effect," of this species of poison, when taken in large quantities, as its effects are too well known to require any special allusion. In closing our remarks, we would briefly say a few words, upon the astonishing rapidity with which alcohol has been found to enter the circulation by absorption. In one of Dr. Percy's experiments, (cited by Carpenter), in which the animal, experimented upon, fell dead, the instant that alcohol was injected into the stomach, (respiration and the action of the heart ceasing within two minutes,) "the stomach was found nearly empty while the blood was strongly impregnated with alcohol." It would be difficult to show a more immediate effect than was here seen, and none of the most fatal poisons could have exhibited a more instantaneous action. It has been contended, however, that where its action is so immediete, that we cannot admit the idea, "that absorption could have taken place to a sufficient extent, for the production of the effect, by the direct action of the poison on the nervous centres," and Dr. Carpenter is disposed to consider the fatal result in such cases, "as rather due to the violent impression made upon the gastric nerves, especially those of the sympathetic system." In conclusion, we would remark, that the more we study the effects of alcohol upon the animal economy, the more we are led to adopt the *justness* of the *conclusion* that it is properly to be *classed* among the *irritant poisons*, having a marked *affinity* for the *nervous system*. The question may be asked, are we then to strike it from the list of remedial agents? Our answer is, No! Like Arsenic and Strychnine, it is often, when properly managed, a valuable remedial agent, but as an article of constant, daily use, its effects, both proximate and remote, are deleterious. He who takes the twentieth of a grain of opium daily, will not at once experience its injurious effects, but will in time require one grain, and the same rule holds good with respect to alcohol in all its forms. Were we all Homeopaths in its use, perhaps the rule might be otherwise; but as long as mankind continue to trifle with an agent so powerful in its effects, and at the same time so certain and insidious in its consequences, so long will the catalogue of premature and sudden deaths, be heralded to the heedless. In the foregoing remarks, we have endeavored to condense, all that bears strictly upon the phenomena of alcohol when used in quantities sufficient to produce the pathological conditions referred to; and in doing so, have availed ourselves of the researches of the best standard authorities. It becomes a question of public hygiene, how far the moral and physical condition of the human race is impaired by the general use of this powerful agent. We are not disposed to discuss the question at present, nor are we prepared to say, that where long continued and laborious occupation is one of the *necessities* of life, that a proper proportion of alcoholic stimulus, with suitable nourishment, may not be conducive to the maintainence of that normal standard of loss and reparation, which is one of the essential conditions of life. Our object has been simply to point out, or rather collect facts, which establish "the poisonous effects," of an article generally considered as one of the necessaries of life. We have no crusade to wage against the general usages of the world, yet still we cannot withold the expression of our conviction, in the truth of the facts herein set forth, nor can it be denied, that apart from the medical consideration of the subject, the habitual use of this species of poison, is one of the "chief causes of crime."

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* Carpenter on alcoholic liquors.

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* Carpenter, p. 39.

† Microscopic Observations on Circulation.

HISTORICAL SKETCHES

BY V. J. FOURGEAUD, M. D.

IX. COMPLEMENTAL REMARKS ON ROMAN MEDICINE UP TO THE TIME OF GALEN.

DURING the period intervening between Asclepiades of Bithynia and Galen, the great metropolis of the Roman empire had attained the zenith of her splendor. The stately ruins of the seven hills still attest the glory and magnificence of that epoch, but the grandeur of character and the manly simplicity of the Republican age had disappeared. Scorning the frugality of their forefathers, the opulent but degenerate masters of the world rewarded with lavish hands all who could in any way minister to their extravagant tastes and fancies. Furs were brought from the forests of Scythia, amber from the shores of the Baltic, carpets from Babylon, silk worth its weight in gold, pearls, diamonds, and other precious stones, perfumes and aromatic gums from the East; in short, the luxuries and gewgaws of every land found a ready market in the Imperial city.*

The natural consequences of this extravagance, combined with boundless profligacy, of which their historians and poets have transmitted to us a vivid but revolting picture,† were soon exhibited in the deterioration of the physical vigor and health of the nation. Multiform diseases and infirmities, the legitimate offspring of excess and vice, grew apace, and rendered Rome the favorite rendezvous not only of educated physicians, but of numerous charlatans, who extorted immense sums from their wealthy and credulous patients.

"I pass over in silence," says Pliny, "many physicians of the highest celebrity, the Cassii, for instance, the Calpetani, the Arruntii and the Rubrii, men who received fees yearly from the great amounting to no less than two hundred and fifty thousand sesterces. As for Q. Stertinius, he thought that he conferred an obligation upon the Emperors in being content with five hundred thousand sesterces per annum; and indeed he proved, by an enumeration of the several houses, that a city practice would bring him in a yearly income of not less than six hundred thousand sesterces. Fully equal to this was the sum lavished upon his brother by Claudius Cæsar; and the two brothers, although they had drawn largely upon their fortunes in beautifying the public buildings at Neapolis, left to their heirs no less than thirty millions of sesterces![*] such an estate as no physician, but Arruntius, had till then possessed. * * * Charmis, a native of Massilia,[†] took the city by surprise. Not content with condemning the practice of preceding physcians, he proscribed the use of warm baths as well, and persuaded people, in the very depth of winter even, to immerse themselves in cold water. His patients he used to plunge into large vessels filled with cold water, and it was a common thing to see aged men of consular rank make it a matter of parade to freeze themselves."[‡]

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* See Gibbons' Decline and Fall of the Roman Empire. Vol. 1, pp. 33–35.

† For particulars respecting the licentious habits of that epoch the reader may consult the recent work of Dr. Jules Rouyer, entitled, "*Etudes Medicales sur l'ancienne Rome,*" Paris, 1859.

Crinas, another native of Massilia, introduced astrology into medicine in Rome, and thus acquired a fortune large enough to enable him to pay from his own purse for the fortifications of several cities in his native land.

The Emperor Claudius having extorted ten millions of sesterces, by way of fine, from Alcon, a surgeon, "*medicus vulnerum*," the same man, after being recalled from an exile in Gaul, acquired as large a sum in the course of a few years.[§]

Galen mentions a physcian named Pamphilius, who amassed great wealth by the composition of a plaster for a prevailing disease of the skin, which affected the face and chin. The account given by Pliny of the introduction of the affection among the Romans, is interesting. "The most insupportable of all the diseases of the face, is the one which, after its Greek appellation, is known to us as 'lichen.' In consequence, however, of its generally making its first appearance on the chin, the Latins, by way of joke, originally—so prone are mankind to jest at the misfortunes of others—gave it the name of 'mentagra,'[||] an appellation which has since become established in general use. In many cases, however, this disease spreads over the interior of the mouth and takes possession of the whole face, with the sole exception of the eyes; after which it passes downwards to the neck, breast and hands, covering them with foul furfuraceous eruptions. This curse was unknown to the ancients, and in the times of our fathers even, having entered Italy in the middle of the reign of the Emperor Tiberius Claudius Cæsar; where it was introduced from Asia, (in which country it had lately made its appearance,) by a member of the equestrian order at Rome. The disease, however, did not attack either females or slaves nor yet the lower orders, or, indeed, the middle classes, but only the nobles, being communicated even by the momentary contact requisite for the act of salutation. Many of those who persevered in undergoing a course of medical treatment, though cured of the disease, retained scars upon the body more hideous even than the malady itself; it being treated with cauteries, as it was certain to break out afresh, unless means were adopted for burning it out of the body by cauterizing to the very bone."

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[*] About $1,325,000.

[†] Marseilles.

[‡] Op. Cit. Vol. V, pp. 373–374.

[§] Plinius, lib., xxix, C. 8.

[||] From "mentum," the "chin." The joke alluded to by Pliny probably had reference to the practice which existed at that period among the higher classes, of bearded men kissing one another—"osculi"—a practice which is still adhered to in several countries of Europe.

The Grecian physicians of Rome were not slow in acquiring the effeminate habits of their luxurious patrons; and as they generally considered it beneath their dignity to dress wounds and operate, surgery was left in a great measure to specialists and slaves.* Celsus cites, however, two or three surgeons of considerable distinction: Tryphon, Evelpistus, and especially Meges. But during the one hundred and fifty years intervening between Celsus and Galen, surgery made but little progress, and its professors endeavored to gain notoriety not by useful researches, but by the composition of absurd and extravagant recipes.

Affections of the eye and ear, and diseases of the skin seem to have been exceedingly prevalent in the Roman capital at that epoch.

Inscriptions which have come down to us testify that many slaves acquired considerable reputation as oculists.† One is translated thus: *Publius Decimus Eros Merula, freedman of Publius etc., clinical physician, surgeon, oculist and sextumvir, has purchased his liberty for seven hundred sesterces. He has paid two thousand sesterces for the office of sextumvir, and thirty-one thousand four hundred sesterces towards paving the streets or roads, and at his death left a patrimony of nineteen thousand sesterces."*

The following is another of Atimetus, who had been a servant of Cassius the physician.

P. ATTIUS ATIMETUS
AUG. MEDICUS AB OCUL.
H. S. E.

There is a touching epitaph of the wife of Atimetus at the Farnese palace in Rome:

MORTE EST MIHI TRISTIOR IPSA
MOEROR ATIMETI CONJUGIS ILLE MEI.

An epitaph of an employé of baths is as follows:

DIIS MANIBUS S.
TITO FLAVIO OLENO
SERVO ET PROCURAT.
BALNEI T FLAVI AUG.
V C T. MEDIASTINO.

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* "The estimation placed upon slaves engaged in the practice of medicine may be ascertained by the Codex of Justinian (Lib. viii, tit. vii, § 5) which fixes the legal value of a maid servant at twenty solidi; of a male slave skilled in handicraft at thirty solidi; notaries, whether male or female, at fifty solidi, and physicians, male or female, at sixty solidi." Watson, The Medical Profession in Ancient Times, p. 213.

† Walchius, Sigillum medici Romani.

VIX. ANN. IX. MEN.
VII. D. VIII.
TITUS FLAVIUS T. L.
POLYMNESTUS.
MEDIASTINUS.
AUG. N. FAC CUR.

Daniel Le Clerc, from whose work we quote these inscriptions, thinks that the letters V C T signify *unctor*. The sale of drugs, their preparation, and the composition of plasters, formed specialities which were followed by different men. The service of the baths, frictions, the care of the head, of the feet, of the nails required a host of supernumeraries of both sexes, and the slaves or freedmen thus employed, after having acquired a certain degree of experience, were not unfrequently decorated with the title of "medicus," or "mediastinus."

Among the slave practitioners, Antonius Musa, a servant of the Emperor Augustus, rose to the highest degree of eminence. Having had the good fortune to cure his imperial master of a severe illness by means of cold baths, after other physicians had failed, he at once received his freedom, the equestrian rank was bestowed upon him, and, by order of the Senate, a bronze statue was erected in his honor near that of Æsculapius. Musa appears to have been worthy of these distinctions, for he not only acquired the esteem of his great contemporaries Virgil and Horace, but effectually used his influence in obtaining important privileges for the medical fraternity of Rome. However, the popularity of his hydropathic method soon after received a check from the death of Marcellus, a nephew and adopted son of the Emperor, in whose case Musa had also employed the cold water treatment.

According to Suetonius, Musa was called to attend upon Livia, the wife of Augustus, during her confinement, in order to accelerate her labor—"*pro partu accelerando*."

Among the Romans as among the Hebrews, Egyptians and Greeks, obstetric cases, and most of the diseases peculiar to women, were generally entrusted to female practitioners. The first midwife on record is the one who acted in that capacity during the second confinement of Rachel, the wife of Jacob. (Genesis c. 35, v. 16.) The two midwives Sephora and Phua, were ordered by Pharaoh to destroy all the male children of the Jews. Such women were designated Maiai and Iatrinas by the Greeks, and Assæ, Obstetrices, Iatrinæ and Medicæ by the Romans. Among the latter they were generally slaves or illiterate females, who acquired their knowledge by attending as aids to the obstetrices until they had gained a certain amount of experience. However, two among them—Cleopatra and Aspasia, appear to have been women of superior qualifications; the latter having written a treatise on midwifery, which has been lost, but mention of which is made by Aetius.

It was only when extraordinary difficulties occurred that the assistance of physicians was required. We have already pointed out the gross empiricism and superstitious practices which resulted from this custom. It is not astonishing therefore, that with the exception of some improvements in the operation for embryotomy and rules for delivery by the feet and version, respectively given by Celsus, Moschion and Philumenus, but little progress was made in the art of midwifery from the time of Hippocrates to that of Galen.

Moschion's work on obstetrics is the only special treatise on that subject which has come down to us from antiquity. He lived during the second century of the Christian era, and belonged to the Methodic school. His book was written in Latin, as he informs us in his preface, for the use of midwives who did not understand Greek.*

Soranus of Ephesus, who had studied anatomy in Alexandria, wrote a treatise on the diseases of women, several fragments of which have been preserved in Aetius and in the twenty-fourth book of Oribasius. From his description of the uterus, he appears to have dissected the female organs of generation, not on the lower animals, but on the human body. He certainly exhibits more correct and minute acquaintance with the subject than is to be found in any of the works of his predecessors. He indicates the relations between the uterus and pelvis, the changes which occur in the dimension of the os uteri during pregnancy, mentions the sympathy existing between the mammæ and womb, and gives a good description of the hymen and clitoris.

The study of anatomy on the human system being prohibited in Rome, few improvements were made in that branch, except by Rufus and Marinus, until the time of Galen. Rufus of Ephesus, who flourished under the reign of Trajan, devoted himself principally to comparative anatomy. His dissections were made on the bodies of apes and other animals, from which he reasoned by analogy to the corresponding organs of man. He was the first to point out the decussation of the optic nerve at the *infundibulum*, and to describe the membranous capsule of the crystalline lens. He also showed the difference of structure and capacity between the right and left ventricles of the heart.

Marinus, who is considered by Galen as the restorer of anatomy, paid great attention to neurology. He divided the nerves into seven pairs, gave the first description of the palatine nerves, which he supposed to be the fourth pair, and is also said to have discovered the par vagum, which he regarded as the sixth pair. He studied the absorbent system with care, especially the mesenteric glands, which were first pointed out by him.†

Botany, materia medica and pharmacy received considerable attention. The conquests of the Romans and their extensive commerce greatly enlarged the field for observation, and enabled them to gather much information respecting the animal, vegetable and mineral kingdoms. Unfortunately, however, the anxiety to discover specifics for all diseases led the authors of that period into the vicious method of seeking empirical results, regardless of indications based on scientific principles. The therapeutical simplicity of the Methodics soon became obsolete, and was succeeded by the most extravagant polypharmacy, as exhibited in the strange farrago of heterogeneous ingredients, known as the Mithridatium of Damocrates, and in other similar compositions of Apuleius Celsus, Menocrates, Philon, etc.

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*Moschionis de muliorum passionibus liber, Viennæ, 1793. In 8. It is not the original, but a translation into Latin from a Greek version which has reached us.

† Galen, de semine, lib. ii.

The book of Scribonius Largus "On the Composition of Medicines,' which has been transmitted to us, is a mere collection of recipes for nostrums, and is valuable only as a curious pharmaceutical relic of the first century of the Christian era.*

Dioscorides of Anazarba, who is supposed to have lived under Nero, is the author of the only entire work on materia medica bequeathed to us by antiquity.† Galen considered it the most complete, judicious and useful that had been written on the subject up to his day. It was held in high esteem and its precepts were faithfully followed throughout the civilized world for fifteen centuries; indeed, it is said that they still retain their supremacy among the Turks and Moors. Although not altogether free from the credulity of his epoch, Dioscorides did not accept and relate as readily as his great contemporary Pliny, the superstitious stories of old women and magicians, attributing most marvellous virtues to inert substances. Unfortunately, his descriptions are exceedingly concise and imperfect, so much so that it is impossible to recognize by them many of the plants alluded to. His therapeutical precepts, which are, also, exceedingly vague and unsatisfactory, consist in mere empirical notions on the use of remedies, without appreciation of the causes of diseases, or even sufficiently specifying the affections for which they are recommended.

Andromachus of Crete, physician of Nero, is principally known to posterity by his polypharmaceutical compounds, one of which, *the theriaca*, including not less than 61 distinct component parts, still retains a conspicuous place in some of the dispensatories of Europe, and to this day disgraces the pages of the French Codex, with even an additional number of ingredients. The Electuarium opiatum polypharmacum of the Codex contains:—acid ingredients, 5; astringents, 5; bitter, 22; indigenous aromatics, 10; umbeliferous aromatics, 7; balsams and resinous substances, 8; fetid ingredients, 6; narcotics, 1; earthy substances, 1; gummy or amylaceous 4; saccharine, 3; total 72; and one of these the flesh of viper, the ***sine qua non*** of the formula! Each drachm of the compound contains a little more than a grain of opium. In Prussia where, according to Nysten, the people still have faith in it as a panacea, the druggists retail it to their customers, without the principal active ingredient, opium, unless prescribed by a physician.

Andromachus wrote a poem, which still exists, on the composition and virtues of the theriaca, and dedicated it to the tyrant, who had honored him with the title of Archiater.

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* Scribonii Largi, de compositionibus medicamentum liber unus. Strassburgh, 1786.

† Dioscorides opera Nicandri theriaca et alexipharmaca, cum scholiis. Francfort, 1598. J. Ant. Saracenus. in 8.

The etymology and signification of this term have been the subject of many learned disputes. Mercurialis was of the opinion that it meant physician to a prince, king or emperor; while others, with Hoffman, applied it to every physician who, by his situation, was raised above his colleagues. The first ordinances respecting this office are not extant. There can be no doubt, however, that the title was first conferred on court physicians—*Archiatri Palatii.* According to Galen, Nero in giving this distinction to Andromachus, endowed him with the power of inspecting the practice of physicians, there being then no law for preventing ignorance and knavery from imposing on the public. But it was soon apparent that the charge of the medical police of Rome was too great a task to be combined with the duties of Court practice, and a body of public physicians—*Archiatri Populares,* was organized. By decree of Antonius Pius, towards the middle of the second century their number was fixed at fourteen for Rome, being one for each ward. Other important cities had five, seven, or at most ten archiatri, according to their size and population. In Rome they were elected by the people, but their nomination was subject to the approval of the Archiatri in office, before whom they passed an examination, which to be successful required at least seven favorable votes. They had a general superintendence over all medical matters, and the poor had a right to their gratuitous services. In return for this, they received a large salary, which they drew from the public treasuries of their respective municipalities, they were exempt from taxes, could not be imprisoned or compelled to appear in courts of justice, and all offences against them were punished with greater severity than in ordinary cases. Indeed, these privileges were not confined to themselves, but many were extended to their wives and children. Their functions gradually became still more important, and under Constantine the education of medical students was intrusted to their care. However, owing to the general decline of learning, the colleges thus established never acquired the celebrity that might have been expected, nor has a great name been left by any of the Archiatri in the records of our science.

At a later period, the Archiatri Palatii were still further honored with the titles of Count "*Comes archiater,*" "*dux,*" and "*præsul spectabiles*;" and a similar rank and appellation, "*comes archiatrorum,*" was bestowed in France, as late as 1574, on Marc Miron, physician to Henry III.*

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* For the laws and customs of the Roman empire in relation to the medical profession, see the Codex Justiniani and Cod. Theod.; also, Le Clerc Hist. de la Méd. part 3, liv. 2, chap. 1. Dezeimeris Dict. de Méd., tome 1. p. 158. Dict. des Sciences Méd., vol. 2, pp. 277–280. Hecker, Jour. Comp. du Dict. des Sciences Méd., tome xxi, p. 221. Sprengel, Hist. de la Méd., tome 11, p. 158. Watson, The Medical Profession in Ancient Times, pp. 208–222.

SORE THROAT AND SCARLET FEVER IN OREGON.—A friend writes to us from Portland, Oregon, Oct. 4th, 1863: "The weather here is now very pleasant, but the mortality among children the past month has been frightful. Sore throat and scarlet-fever have carried off more than a hundred of a population scarcely exceeding 2,500, young and old, and still the disease is raging." E

BIBLIOGRAPHICAL NOTICES.

Hints on Health in Armies, for the Use of Volunteer Officers. By John Ordronaux, M. D., Professor of Medical Jurisprudence in Columbia College, New York. Second edition, with additions. New York; D. Van Nostraud, 192 Broadway. 1863. pp. 139. For sale by A. Roman & Co., 417 & 419 Montgomery street, San Francisco.

The leading principles of military hygiene are exposed in this small book in a concise but interesting manner. It abounds with useful information conveyed in a pleasant and plain style, the author having very properly avoided the terminology of medical science, in order that its contents might be understood without difficulty by the non-professional reader.

The Nature, Causes and Treatment of Nervous Deafness, translated from the French of "Duchenne," by Lawrence Turnbull, M. D., Aural Surgeon to and Lecturer on Aural Surgery at Howard's Hospital, Philadelphia, etc., etc. Philadelphia: Lindsay & Blakiston. 1863. pp. 119.

This is a translation of the article on nervous deafness from Duchenne's valuable treatise "L'Electrisation Localisée," to which Dr. Turnbull has added general remarks of his own. We recommend it to our readers, especially to those who have not read the standard work of Duchenne.

Physicians' Visiting List for 1864.—We are informed by the publishers, Messrs. Lindsay & Blakiston, No. 25 South Sixth street, Philadelphia, that this work has been sent to us through the post-office. We have not received it. For the convenience of our readers who may wish to send orders, we copy the prices from our exchanges, as follows:

For 25	patients,	weekly,	plain	$0 63
25	"	"	tucks	1 00
50	"	"	plain	0 75
50	"	"	tucks	1 25
100	"	"	tucks	2 00

Health of San Francisco.—The total number of deaths for the month of September was 181, being 18 more than for the preceding month. 91 were recorded in the Lone Mountain Cemetery, of which 22 were under three years, and 5 still-born, 86 in the Roman Catholic burying ground, of which 34 were under three years, and 10 still-born; and 4 in the Jewish cemeteries.

It will be remarked that the number of children under three years interred in the Roman Catholic cemetery was exceedingly large; and if we add to that number the ten still-born, we find a total amounting to 44; thus, more than one-half of all the interments in that burying ground were for children under three years of age!

The principal causes of death are recorded as follows: Consumption, 22; lung diseases, 4; brain diseases, 7; heart diseases, 3; typh fevers, 3; enteritis, 2; dysentery, 4; cholera infantum, 2; scarlatina, 2; dentition, 5; whooping cough, 3; measles, 7; paralysis, 2; still-born, 15.

THE

Pacific Medical and Surgical Journal.

SELECTIONS.

Practical Observations on the Injurious Effects of Chloroform Inhalation during Labor.

BY ROBERT JOHNS, A. B., M. D., T. C. D.,
Chairman of the Midwifery Court, and Examiner in Diseases of Women and Children, Royal College of Surgeons in Ireland, etc.

As, at the present time, the subject of chloroform inhalation is again *sub judice*, I feel it incumbent upon me to raise my voice against its employment in midwifery, and to lay before my professional brethren my reasons for the adoption of such a course, which I sincerely trust shall have some weight with the unprejudiced, and which may, perchance, call the more serious attention of some, if not of all, of those now too deeply wedded to its use, to the dangerous, and too often fatal, results consequent thereon, in which, if I but even partially succeed, I shall consider myself well repaid.

From experience, repeated observation, and the published, as also the otherwise expressed opinions of those who agree, as well as those who disagree with me upon the subject, I am firmly convinced that chloroform, when inhaled during labor, very fruitfully disposes to hemorrhage, puerperal inflammation, chest affections, and to other diseases detrimental to health and life, which it aggravates if given during their presence. It also lays the foundation of diseases to arise at a more distant period, and thus increases the mortality in childbed and subsequent thereto. I have known puerperal inflammation frequently to have followed its inhalation, and too often with a fatal resnlt; in fact, some years since, when it was more fashionable, and was given with a more lavish hand, a great mortality obtained amongst the patients of some few men who administered it—so much so that a popular outcry was raised against its employment. In the majority of those cases puerperal fever was the cause of death, which, when thus raised, being, as I firmly believe, always infectious or otherwise communicable, became epidemicised, after which even those who wisely refused the drug, "charmed it never so sweetly," were thus inadvertently, and, in some instances, hopelessly poisoned.

In support of these positions, I shall first refer to the several published reports of the Dublin Lying-in Hospital. We find, on reference thereto, during the masterships of Drs. Collins and Johnson,[*] when chloroform was not inhaled, that the mortality was much less than during that of Dr. Shekleton,[†] when this "pernicious drug was used"—as thus:—In the first report are recorded 16,414 deliveries and 164 deaths, or 1 in 100; in the second, 6,634 deliveries and 65 deaths, or 1 in 102; whereas in the third, 13,748 deliveries are given, and 163 deaths, or 1 in 84!! But of these last 13,406 cases were not chloroformed, of which only 133 died, or 1 in 100, and of the remaining 342 who took the drug, 30 died, or 1 in 11!!! If, again, we examine the reported cases of chloroform administration by Simpson and Denham, we shall find that of 245 cases mentioned by the former, 5 died, or 1 in 49; and of 56 by the latter, 5 died, or 1 in 11!! And, by adding all these recorded cases together, we have a mortality on the whole of 1 in 16!!! By again consulting those reports, we perceive that in Dr. Collins' mastership there occurred 97 cases of post partum inflammation, or 1 in 169; in Dr. Johnson's, 62 cases or 1 in 107; but in Dr. Shekleton's, 150 cases, or 1 in 91. Of those 150 cases, 20 followed upon chloroform inhalation, or 1 in 17!! and in the remaining 130 cases, in which it was not employed, the average mortality was only 1 in 103. In Denham's report we find 4 cases, or 1 in 14; which, with all the recorded cases, strikes an average of 1 in 16½!!!

We also find that, during Dr. Collins' mastership, puerperal convulsions proved fatal in the proportion of 1 in 6; whereas, in that of Dr. Shekleton, when under chloroform, it amounted to 1 in 3!! and in Denham's cases to 2 in 3!!! or, on the whole, to 1 in 2½!!!

It appears that, during Dr. Shekleton's tenure of office, post partum hemorrhage occurred but once in every 257 cases when chloroform was not used; yet after its inhalation this complication was present in 1 of every 49 cases. In Dr. Denham's report it was present in 1 of every 19 cases; making on the whole, an average occurrence of 1 in every 39¾ cases.

With respect to the mortality after perforation, the report of Drs. Hardy and M'Clintock shows 1 fatal case in every 6, and that of Drs. Sinclair and Johnston 1 in every 5; but if we go a little below the surface in the latter report, and examine into 99 cases of perforation, all of equal severity and danger, we shall discover that of the 29 cases in which chloroform was inhaled 9 died, or 1 in 3¼; puerperal inflammation occurred 10 times, or 1 in every 3 cases; and hemorrhage followed in 3 cases, or 1 in every 10; whereas, of the 70 cases in which this drug was not employed, only 6 women died, or 1 in every 12; puerperal inflammation arose only in 3 cases, or 1 in every 23; and in no case did hemorrhage occur.

Many have testified to the fact that uterine action has been lessened, and even caused to cease, by anæsthetics; as also that their effect on some is not commensurate with the quantity of the drug employed—as thus: a very large amount not having any effect on some, whereas the inhalation of a very small dose, even of a few drops, has produced almost deep coma in others. Dr. Denham says: "In some, if left to nature, the labor would probably have been completed in a somewhat shorter space of time. The advantages to be gained by chloroform in some cases will not be found an adequate compensation for the loss of power sustained in the muscles of animal or organic life; and, were we to continue its use, I do believe that the patients would remain undelivered for hours, or even days. The cases that apparently require it most—tedious and difficult labors—are those where it often appears to be injurious, by weakening the pains or relaxing the muscles of animal life." Rigby says: "We meet with cases, every now and then, where chloroform undoubtedly retards labor, and in some cases likely to call for the use of the forceps."

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[*] By Drs. Hardy and M'Clintock.

[†] By Drs. Sinclair and Johnston.

Dr. Robert Lee mentions cases in which "uterine contractions were arrested, requiring the use of the forceps and perforator."

Tyler Smith "has seen chloroform stop labor midway."

In some of the cases recorded by Sinclair and Johnston uterine action was impaired.

My friend, Dr. Young, of Monaghan, says, in a letter to me: "I believe chloroform in many instances to delay the labor, by causing the pains to come at longer intervals, and rendering the expulsive efforts of the patient less efficient, owing to her insensibility to suffering."

Merriman has mentioned a case in which "the uterus was so paralyzed that it failed to act afterwards."

Snow says: "It is true that a full dose would at any time suspend uterine action for a few minutes, or as long as it might be kept up."

Ferguson says: "Chloroform does not destroy muscular action, because, when under its influence, some expel urine and fæces." Now, from this, his doctrine must be that it increases muscular action; whereas, I take it that it paralyzes the sphincters.

On looking into Drs. Sinclair and Johnston's report, we find "two cases in which version was very difficult; and two others in which that operation was impossible, where chloroform had been inhaled."

Murphy thus speaks: "In a case of version, I never experienced so much difficulty in consequence of the strong contractions of the uterine fibres about the child."

Barnes remarks: "In many cases it does not facilitate the operation of version, the uterus resisting the introduction of the hand."

Puerperal, hysterical and epileptic convulsions—mania, paralysis and insanity have followed on its use. Cases are recorded by Montgomery, Sinclair and Denham, in which puerperal convulsions occurred after its employment. Sinclair gives two cases of hysterical convulsions, in one of which "violent muscular action was induced; restlessness continued for a considerable time after the inhaler was removed."

Murphy states that in "dentistry, hysterical women have been seized with fits under its influence."

Snow asserts that "hysterical patients, as soon as they lose their consciousness from the effects of the vapor, are sometimes attacked with a paroxysm of hysteria."

Dr. R. Lee says: "Epilepsy has been so induced."

Sinclair records one case of epilepsy.

Snow and M. Fix have stated "that persons subject to epilepsy are likely to have a fit brought on by inhaling chloroform."

Ramsbotham "saw three cases of puerperal mania so caused. A friend of his also saw one similar case."

Sutherland "met three other cases similarly produced."

Tyler Smith stated "that he had seen mania from its use."

Parks relates the case of a lady who had chloroform in her third labor. "She, after delivery, complained of violent pain in the head, became delirious, tore the nurse's gown and the bedclothes into pieces, and was perfectly maniacal."

Mr. Banner thus speaks: "A patient became delirious, and continued so during the day and the greater part of the night after its use."

Haartman "saw a case of headache terminating in paralysis, caused by this drug."

In one of Dubois' published cases, numbness of the fingers, and in another the same condition of the legs supervened, and had not subsided at the end of twenty-four hours.

In Denham's report I find one case of coma after chloroformic inhalation.

Dr. R. Lee says "that insanity has followed on its employment; that dangerous and fatal perotonitis and phlebitis have been caused by its inhalation."

Two or three of Denham's cases were seized with rigors; and Lee mentions "others with dangerous fits of syncope;" and in this he is borne out by the following, which I find recorded among Denham's cases: "While inhaling, the pulse became very weak, and she gave no signs of consciousness; and, immediately on the birth of the child, the respiration of the patient ceased, and the pulse became imperceptible; the application of cold water to the face soon revived her, and she went on favorably for several days; but diarrhœa, with extensive inflammation of the mucous membrane of the ileum, set in, and she died on the fourteenth day."

Sinclair and Johnston record nearly a similar case, as thus: "The pulse suddenly became imperceptible, and respiration appeared to have ceased. She subsequently died of phlebitis." And they give another in which collapse occurred, and she died with symptoms of phlebitis.

Tyler Smith says "that he knew two ladies to whom a few drops of chloroform, at any time, would produce repeated fainting."

I am acquainted with a lady who, some time since, had a very severe attack of syncope from taking only five drops of chloroform in a draught.

Dr. Barnes stated "That he had himself given chloroform to facilitate the extraction of an adherent placenta, and had witnessed such exceeding prostration for eight hours afterwards, as to make him, and another practitioner who assisted him, apprehensive of the instant death of the patient."

Many are of opinion that the inhalation of chloroform predisposes to laceration of the perinæum; indeed, some of the published cases would tend to favor this idea. In Sinclair and Johnson's reports, we find that in the recorded cases, it occurred once in 27 cases; and when not employed, the accident happened only once in 93 cases. In the same work we find three cases of the chest affection aggravated by this means, two of which succumbed. Dr. Ringland, one of the Masters of the Coombe Lying-in Hospital, in reply to a letter from me, thus writes:

"I have seen chloroform frequently used in puerperal convulsions, and have used it myself in connection with the practice in the Coombe Lying-in Hospital; and the conclusion I have come to is, that I will never again use it, or sanction its use, in puerperal convulsions. I have observed that, however satisfactory its employment may appear at the time, it has been almost invariably followed by bronchitis, within 48 hours, and that the patients have sunk rapidly under the latter affection. I have seen this so frequently that I cannot but look on chloroform and bronchitis, under the circumstances I have named as cause and effect; and the mortality from the subsequent bronchitis, as the actual result of the employment of chloroform.

Ramsbotham relates the case of "a lady who was seized with dyspnœa with excessive lividity of the face, and all the signs of engorgement of the lungs and heart, and died in convulsions six hours after."

Murphy has published a case nearly similar; he also admits "that vomiting, nausea and headache sometimes follow on its use." Nausea and vomiting were also present in some of Denham's cases.

Rigby states, "that intense headache and even vomiting are consequences of its use."

I occasionally use a blistering fluid which contains chloroform, and if I am not very cautious during the *minute* I am employing it, I am certain to suffer from sick headache for the remainder of the day. Not long since, severe vomiting followed upon the inhalation of chloroform, during the operation for vesico-vaginal fistula, in one of our city hospitals; and, in spite of all remedies, lasted for six days. It is needless to say that the operation, in consequence thereof, failed. I have so often seen this effect of the drug that I always object to its use in operations requiring the employment of sutures upon the female genitals. Thus, it is evident that such a complication existing after labor would, like severe cough, predispose our patient to inflammation in parts, for whose restoration to health absolute rest is required.

Parks gives the case of a "lady in whom, after chloroform inhalation, flooding came on to a fearful extent, and incessant sickness. He managed to extract the placenta; and owing to the feeble contractions of the uterus (and this latter condition he is confident, it often produces), he was kept grasping it for four or five hours; the vomiting continued for eight hours without intermission; the headache remained for weeks."

Tyler Smith "believed that post-partum hemorrhage and retention of the placenta occurred more frequently after its use than without it."

Montgomery was of opinion "that it predisposes to retained placenta and hemorrhage."

My friend, Dr. Young, before alluded to, says: "I have blamed it for causing a longer detention of the placenta, and for occasional after-hemorrhage, owing to the lazy and inefficient contraction of the uterus. After its use opiates have very little effect; even very decided doses, in any form, have not been followed by that tranquility I had hoped for, in that violent pain which I have so often found to follow operation when chloroform had been used."

Murphy speaks of making pressure on the uterus to expel the placenta, in two cases, after chloroform.

Denham had one case of retained placenta after its employment. He says: "We had no reason to think that chloroform predisposed to hemorrhage; on the contrary, we were impressed with the idea that the number of hemorrhagic cases where it had been given were rather below than above the average in ordinary practice." This statement does not accord with my experience, and I should be sorry to think that hemorrhage so frequently complicated labor, "in ordinary practice," as once every *nineteen cases*, as shown by his report. Some of the loudest advocates for chloroform inhalation in labor have, in order to counteract its deleterious effects upon uterine action, recommended the co-administration of ergot of rye; which practice reminds me of the astute physician who, to be sure to hit his patient's disease, prescribed for him the combination of a stimulant with a sedative, and a purgative with a tonic. But I hold that there is a more serious objection than this to the wholesale use of ergot; for we cannot conceal from ourselves the fact that its administration, even in appropriate cases, is not always innocuous. Some years since the following case came under my knowledge: Ergot was given to an unmarried lady to facilitate the birth of her first child, before her father, who was ignorant of her condition, had returned home to his dinner. The child was rapidly expelled, but sloughing to a frightful amount followed, and placed her life in jeopardy for days. And who has not seen the child sacrificed by it? For this reason, it has now-a-days become almost an axiom not to leave a female undelivered for a longer period than two hours after its employment. I believe that ergot of rye, in some cases, causes incarceration of the placenta and hemorrhage, and in others sinks the patient; the uterus, after its use, often remains large and uncontracted for days, which state not unfrequently terminates in imperfect involution of the uterus and its consequences; which last effect chloroform also produces. Many believe that ergot, besides destroying the child at the time of its birth acts sometimes otherwise deleteriously upon it, by inducing disease—to do so at a shorter or longer subsequent period—or to reduce it to a state to which death would be preferable.

Dr. Catlet, in the 57th volume of the *Edinburgh Medical Journal*, page 83, states that ergot of rye, when given during labor, causes puerperal convulsions, hour-glass contraction of the uterus, and infantile hydrocephalus. Amongst the cases of the last, I find one in which "symptoms of meningeal inflammation were developed on the 19th day, and the child died in convulsions, with coma, on the second day following." And in another, "the symptoms of cerebral derangement set in suddenly on the 21st day, and the child died on the third day of the attack in convulsions."

Dr. Beatty, in a paper "On the Influence of Ergot of Rye on the Fœtus in Utero, published in the 25th volume of the *Dublin Medical Journal*, page 201, amongst other cases after its use in labor, gives the following: "Case 7. The child had convulsions for three days after its birth." "Case 9. The child had convulsions for 48 hours after birth. They then subsided, but left the child in a state resembling paralysis, with occasionally a convulsive motion of the muscles of the face and limbs, and fixed strabismus. No treatment seemed to have any effect upon this condition. Twenty days after its birth the following report was taken: 'This child has remained in a state of insensibility up to the present time; the strabismus has lately disappeared, but it seldom opens its eyes. The limbs are apparently powerless. It makes no effort to suck, but it swallows breast-milk with difficulty when put into its mouth. The difficulty is increasing; the bowels act naturally.' In this state the child lingered on until the 25th day, when it died." Case 12. This child he first saw when three years old; "it then had an idiotic countenance, and was never free from spasms and palsy, commencing from its birth."

Cusack and others have also testified to the deleterious effects of this drug upon the cerebro-spinal system of the infant.

Dr. Snow says that "chloroform is a volatile spirit, and that half an hour after its application no traces of it could be found in the system."

Now, in refutation of this assertion, Dr. Ramsbotham mentions the case of "a lady who, for four or five days after its use, could not get rid of the smell."

Dr. Aveling speaks of "a lady who had chloroform in three labors, all of whose children, when unwell, had for years afterwards the smell distinctly off their breaths. This lady would never take it again."

In a monograph by me, on "Blistering the Os and Cervix Uteri," published in the May number of the *Dublin Quarterly Journal*, of the year 1857, cases are mentioned of females having had the smell of chloroform off their breaths, evident to their friends as well as to themselves, and of others having experienced its taste, lasting in both instances for days after the blistering fluid containing that drug had been employed.

When sulphuric ether was first employed as an anæsthetic in this country, a medical student inhaled it as an experiment in this city, and the smell of it was evident off his breath to any one who spoke with him for nearly a week after its employment.

Dr. Jackson (an American) thus writes upon the subject: "When chloroform is inhaled into the lungs, the oxygen is abstracted from the blood, and, combining with the formyle, makes formic acid, while the chlorine combines with the blood as a substitute for oxygen. Thus a portion of the blood becomes chemically changed, disorganized, and rendered unfit for its vital functions. I have now a phial of blood, taken from a young lady killed by the inhalation of pure chloroform, before me, it having been kept in my office, exposed to temperatures from the freezing point to above 80o, for more than six years, and yet it has not decomposed, nor has a single bloodglobule settled to the bottom of the phial, nor has the color changed in the least." It has been denied that females, when under the influence of chloroform, make use of improper and indecent language, Now I never shall forget the case of a lady I saw, in consultation, a couple of years ago, with a hospital surgeon, who when chloroformed, threw her arms around him in the most endearing manner, and made use of language which would make her blush in her senses, of which I hope sincerely, she was never made cognizant.

Denham says:—"There are cases in which chloroform appeared to be not only useless, but, when preserved in, positively injurious." And again:—"In giving chloroform we incur a certain amount of present danger, and perchance of remote ill effects."

Dr. Robert Lee, in reply to a letter from me, says:—"I could give you a great number of cases in which chloroform was not only injurious, but fatal."

Dr. Gream said:—"He agreed with Dr. Lee in saying that we were quite unacquainted with *one-tenth* of the evil effects which had resulted from the use of chloroform, particularly in Scotland."

Dr. Duncan, in a letter to Dr. Lee, thus writes:—"Your case of chloroform death in midwifery, is, to the best of my belief, not the only one in Scotland. I was called, too late, to a case which died suddenly while taking it in *small quantity*."

Dr. Campbell, of Ayrshire, records another case of death in labor from its use. Mr. Carter says "that in two cases its effects would appear to have been pernicious."

Prof. Faye, of Christiana, has also recorded a fatal case of labor after its use.

Dr. Barnes says:—"In ordinary forceps cases chloroform certainly is not required, either to facilitate the operation or to allay the pain." Indeed by its use in such cases we lose one very valuable indication by our patient's want of sensibility. Dr. Chas. Kidd evidently does not consider its use devoid of danger, as he advises the physician who administers it "*always* to carry in his pocket a portable galvanic chain or battery." Drs. Kidd and Richardson are reported as having seen many deaths after its employment and the former gentlemen "to have seen about 300 cases restored to life or rescued after they had been pronounced dead." I would ask, in the name of common sense, is it within the bounds of reason to believe that a medicine can be employed innocuously with the pregnant female, when confessedly its use has often been followed not only by dangerous, but even fatal results under other circumstances, as testified by Drs. Kidd and Richardson, amongst many others, as also by most every periodical we take up? Dr. Show in speaking of his imagined advantage of chloroform over opium in version cases, thus writes:—"If 50 or 60 drops of laudanum were given, the patient remained under its influence, more or less, for 48 hours." Now, in this I must join issue with the Doctor, for I am, and have been for years, in the habit of giving such and even larger doses in those cases, as also in hæmorrhage, and I never yet saw such a result, or one at all approaching to it. We have been told that across the Tweed death has not, in any instance, followed upon the inhalation of chloroform in labor, whereas some have been since recorded; and not very long ago I was informed, by more than one physician practicing in Scotland, that many have so occurred there, but not made public, yet well known to the profession. It is also a fact that some who have written favorably on its use have since changed their opinions, but have not said so publicly; and some give it only in name, or as has been styled *a la Reine*. The following is so apposite here that I cannot avoid quoting it from Denham:—"That chloroform may be, and sometimes is, given for the purpose of amusing patients, and making them believe that they are saved from a vast amount of pain, when in reality they have scarcely inhaled a single breath of it, I doubt not."

We very frequently see safer and better recoveries after tedious and painful than after rapid and painless labors, and the latter are not the less likely to be seriously complicated; indeed, in former days when happy for the parturient female, chloroform was unknown, and when meddlesome midwifery was strongly reprobated, such an opinion was entertained. *Apropos*, I have two patients—one the mother of five, the other of four children—who always have rapid and, I may say, painless labors, but which are invariably followed by alarming hæmorrhage, by no means an unusual occurence, as already shown, after chloroform inhalation, besides being admittedly a fruitful predisposing cause of puerperal inflammation. In the employment of anæsthetic agents during instrumental delivery we deprive ourselves of a very valuable indication in the loss of our patient's sense of feeling, which the following cases forcibly illustrate; for had such means been restored to in either, it must be evident to all, even to the most sceptical, that the consequences should have been most disastrous:—Mrs. D. had a very tedious labor, with her first child. When about 36 hours in labor, the os uteri was found thinned and spread tightly over the head of the child, dilated to about the size of a shilling, but directed obliquely backwards and upwards, so located as only to be found by the well educated and practiced finger. Her medical attendant, having failed to discover the real state of matters, took it for granted that he only felt the head, which had passed through the fully dilated os, and proceeded, without further delay, to deliver her with the forceps; but from the great pain which she experienced from the application of its blades on the head so clothed, he was obliged to desist; and being much alarmed, he sought for further assistance, after which the nature of the case was discovered, when of course, all interference was given over for the time, but eventually destructive instruments were had recourse to. The other was the case of Mrs. M., very similar to the former; but the perforator was the instrument employed, which the medical gentlemen pushed into the cervix expanded over the head, when her piercing cries and some slight bleeding caused him to look more narrowly into the state of the parts. She was, however, afterwards naturally delivered, and had a good recovery.

At page 333 of the *Dublin Quarterly Journal of Medical Science*, for May, 1849, in the late Dr. Montgomery's essay upon the "The Indiscriminate Administration of Anæsthetic Agents in Midwifery," we find a somewhat similar case recorded, in which the medical man mistook the attenuated anterior section of the cervix uteri for the membranes, which he was endeavoring to perforate with his nail, when the lady's cries arrested him.

Even though it was possible to divert chloroform of its dangers, it does not, as has been already shown, always produce the advantages expected from its use, as in version; for indeed not a few instances have been recorded of its having been an impediment to this operation, which in some cases could not be overcome. I cannot see any advantage derivable from the inhalation of this poisonous drug in cases of retained placenta, as generally such a complication is caused by inaction of the uterus; and our object, therefore ought to be to induce uterine action, surely not further to paralyze it. Such treatment reminds me of a case which I was called to see 20 years ago. The placenta had been retained for 6 hours, and some draining was going on. The lady's medical adviser was looking on very complacently, and dosing her with tartar emetic. Of course there was not any difficulty in the extraction; but puerperal inflammation set in on the second day, from which she eventually but slowly recovered. Every practical man hails after pains as salutary, especially after quick and painless labors, and would not dream of interfering with their wholesome action, unless very severe, for some hours after delivery; yet those misguided chloroformists think nothing of interfering with that safe action at times when the advent of hæmorrhage would complicate matters more seriously. The other objections to its use at other times, under certain circumstances, as equally admissible here. I think I have now demonstrated that chloroform inhalation is far from being a safe remedy in childbed, and should not then be employed.—*Dublin Quarterly Journal of Medical Science*, May, 1863.—*Chicago Medical Journal.*

Prevention and Cure of Puerperal Inflammations.

BY E. H. JANES, M. D.

WHILE there exists a greater or less mortality in childbed, the subject of its causes, prevention, and cure, cannot be too faithfully studied by the medical man. An elaborate paper on this subject, by Dr. Robert Johns, is published in the last number of the *Dublin Quarterly Journal of Medical Science*, founded upon many years experience and observation, in which we are told that in by far the greater majority of instances, especially in private practice, *post partum* inflammation is either induced or overlooked by the medical attendant, from want of practical knowledge or attention on his part, or from neglect or violation of his directions by the nurse, by the patient, or her friends. In addition to his own observation, he is supported in this remark by such authority as Drs. Denman, John Clarke, and White. Without presuming to discuss the pathology, or to recommend any new specific for the treatment of the disease, the object of the paper is to point out some of the principal causes, and show how they may be avoided, or, failing to prevent the disease, to point out the best means for removing it. He views prevention in a twofold light: in one, our object being to avoid or remove predisposing causes; and in the other, when these causes have obtained, to counteract their baneful influence by adopting that treatment most likely to ward off the anticipated danger; and this he believes is best effected by adopting as a prophylactic—though less actively—the most powerful of those means successfully employed for the cure of the disease. Should this fail, we have the advantage of having commenced treatment early in a disease which runs its course so rapidly. Though the causes of post-partum inflammation are numerous, the following are classed among the most frequent and most powerfully predisposing:- 1. *Impaired health during pregnancy.* This we should remedy as far as possible by insisting upon the use of proper kinds of food, and regularity in the mode of living towards the end of pregnancy, by paying proper attention to the bowels, and by all means prevent an accumulation of fæces. By seeing the patient occasionally, much may be done towards keeping her in good health. 2. *Want of cleanliness and ventilation. Hospital influence.* The remedy for this is obvious. The only means of arresting the disease when prevailing in a public institution, is in shutting up, cleansing, painting, and thoroughly ventilating. As an example, he mentions the report of the Royal Maternitè Charity of London for 1861, in which year 4,110 were delivered, and 11 died, not one of whom had puerperal fever, while during the same period this disease largely embittered the charity of the London lying-in hospitals. 3. *Contagion. Epidemics.* This part of the subject is not confined to epidemics of puerperal fever and its kindred disease, erysipelas; but typhus, scarlatina, small-pox, physicians engaged in anatomical pursuits, or post-mortem examinations, all furnish abundant source of infection for the propagation of this disease. In support of this, he cites what occurred some years since at the Vienna Lying-in Hospital, where it was the habit to intrust one portion of the patients to the care of male students, whilst the other portion was attended with females. It soon became manifest that the mortality amongst the former class was far greater than in the latter, which, on inquiry, was found to have resulted from the fact of the male students being engaged daily in anatomical pursuits. They were superseded by females, after which the discrepancy completely disappeared, and an order was issued that, for the future, no student so engaged would be permitted to attend.— He is so strongly impressed with the truth of this observation, that he invariably refuses either to make or assist at necroscopic examinations, and considers it highly reprehensible for any person so engaged, or in attendance of typhus fever, erysipelas, or puerperal fever in hospitals, or who is resident therein at epidemical periods, to practice midwifery. Though the disease be epidemic in its origin, we often have sufficient precursory indications to lead us to make use of such prophylactic measures as are within our power. These indications are, slow recoveries, without being able satisfactorily to account for them, deficiency of pains, irregular and spasmodic contractions, rigidity of the os, the other causes of prolonged labor, which, of itself, is one great source of the disease. This is supported by the evidence of Drs. Collins, Joseph Clarke, aud Van Franke. 4. *Distress of mind from seduction and such like*; *anxiety and excitement caused by visitors.* The connexion between mind and body is nowhere better exemplified than in the puerperal state; and it is a true remark that seduced females are particularly obnoxious to puerperal fever, which with them is very fatal. Newspaper reports of deaths from this disease, and many stories continually rung in the ears of the poor victim by the anxious but meddlesome friends, all have their mischievous tendency, and should, as far as possible, be prohibited; also, the too early admission of visitors into the patient's room, while still suffering from that irritation of the system occasioned by the violent efforts of labor. 5. *Errors in diet, and use of stimulants.* From various authorities consulted, as well as from actual experience, it is laid down as a rule that animal food is improper, and ought not to be allowed till after the secretion of milk has been well established, the attendant fever subsided, and the pulse has come down to its natural standard. Stimulants employed during labor induce hœmorrhage; and if taken too soon after its completion, induce puerperal inflammation. 6. *Hæmorrhage; introduction of the hand for version, or retained placenta; portion of secundines retained, or clots putrefied in the uterus.* 7. *Drawing the breast by artificial means too soon after delivery, or repelling the milk too suddenly by cold applications of vinegar, etc.* 8. *Exposure to cold, too early rising, or going out too soon after delivery.* We cannot too carefully guard our patient from exposure to cold, either from too light clothing, or the too abrupt removal of the binder, or from going out for a walk or drive, for at least a month after delivery. This must be apparent to all when we bear in mind that the womb, which before impregnation measured two and half inches, and weighed about an ounce and a half, and which had at the termination of utero-gestation increased to twelve inches, and attained to the weight of several pounds, could not return to its pristine condition in a shorter period of time. With a view to avoid inflammation, as well as the foundation for future mischief, it is deemed paramount to keep the patient in a recumbent posture so long as we can feel the uterus enlarged above the pubes. 9. *Puerperal convulsions, actual or threatened.* Collins and Denman both allude to this fact, and Dr. Johns has elsewhere expressed the same opinion, which his subsequent experience has proved to be correct. 10. *Uterine disease.* 11. *Inhalation of Chloroform during labor.* He entertains no doubt that this strongly predisposes to puerperal inflammation, producing the disease either directly by poisoning the blood or otherwise, or indirectly by inducing hæmorrhage, or chest affections, already stated to be promoters of the malady. He has already written a paper on this subject, published in a previous number of the Journal. If we are not successful in avoiding or removing these causes, our next duty is to employ, as a prophylactic, such remedies as have been most successful in treating the disease, regulating the administration by the number and force of existing influences. For this purpose mercury is recommended to be employed in a mild way, commencing immediately after, and in some instances before delivery, and continuing its use until the milk has been secreted. Where the patient has suffered much in the removal of the after-birth, Dr. Collins recommends the use of calomel and ipecacuanha, to be commenced immediately after delivery, so as to be beforehand with inflammatory attack. It is highly important that the treatment should be commenced early, as a few hours delay may often be the cause of a fatal result; hence the necessity of watching narrowly the condition of the patient, so as to be able to detect the slightest inflammatory symptom, and of seeing the patient instantly if sent for under circumstances that lead us to suspect the slightest danger. The treatment should not only be prompt but thorough. The abstraction of blood is generally requisite, tho' venesection, owing to the asthenic nature of the disease, is not so often resorted to as formerly. The repeated application of leeches answers better, and does not weaken the patient. Mercury is regarded as our sheet-anchor, and should be given in very bad cases to an extent nothing short of salivation.—Owing to the diarrhœa that sometimes accompanies the administration of mercury, Dr. Johns is in the habit of giving it in combination with opium and bismuth, giving the mercury in small doses by the mouth, together with its endermic use. When used in this manner, he has never seen the bowel complaint increased, but, on the contrary, arrested. He knows of no well authenticated case terminating fatally where there were distinct evidences of the system having been affected by mercury. As adjuncts he employs stupes, turpentine epithems, turpentine internally if much flatulence exists, linseed-meal poultices, hot dry bran, and blisters, in some instances dressed with mercurial ointment. Where mercury is inadmissible, or when it has been inefficiently used or neglected, secondary affections are likely to supervene, when quinine with opium, bark with ammonia, chlorate of potash, sesquichloride of iron, broths, and brandy, are indicated.—*Am. Med. Times.*

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On the Action of Digitalis.

On this subject, W. B. Kesteven, Esq., writes as follows in the *Medical Times and Gazette:*

Attention having recently been directed to the effects of digitalis, it may not be uninteresting or uninstructive to your readers to have their attention directed to the opinions expressed in Dr. Fuller's recent work on "Diseases of the Chest." Dr. Fuller is well known as a man of sound practical judgment, and one who does not express an opinion without having duly weighed all the facts on which it is based. It is urged by Dr. Fuller, that the general notion of the danger attending the administration of digitalis in dilatation of the heart is incorrect, inconsistent with fact, and founded on the erroneous impression that digitalis exercises a depressing influence over the action of the heart, and, therefore, leads to accumulation and coagulation of the blood in its cavities, if not to actual paralysis of its muscular structure. Dr. Fuller affirms, that digitalis stimulates the muscular fibres of the heart, and augments the contractility of the capillaries: that when it kills, it is not by paralysis, but by tonic contraction and spasm of the heart; that, such being the case, it is a valuable remedy in dilatation, and dangerous only when administered in hypertrophy. The grounds given by Dr. Fuller for these opinions are thus stated by the author (p. 592):

"1st. During many years, I have observed that the cases of heart disease most benefitted by digitalis have been those in which the heart has been weak and dilated, and the pulse feeble and irregular. In these the pulse has become stronger and steadier, and less frequent under its action.

"2d. In the only cases in which I have known death to occur suddenly during the administration of digitalis, the heart has been hypertrophied and firmly contracted. This may have been a coincidence, but, viewed in connection with the results of experiments to which I shall presently refer, it is, at least, a suspicious fact.

"3d. Dr. Dickenson has pointed out (Med. Chir. Trans., vol. xxxix), and I have repeatedly verified his observation, that digitalis, if given in full doses, induces violent uterine contraction, and checks uterine hemorrhage; and, inasmuch, as its action in staying menorrhagia and uterine hemorrhage is permanent, it seems fair to conclude that it gives tone to the capillaries, and increases their contractility.

"4th. This view is borne out by what I have long since observed relative to its action in arresting hæmoptysis, viz., that whilst effecting the object required, it does not weaken but rather increases the force of the pulse, though it lessens its frequency.

"5th. When patients die of delirium tremens, the pulse is usually rapid and fluttering before death, and the heart is found weak, flaccid, and distended with blood afterwards. These are just the cases in which, on the commonly received doctrines as to the action of digitalis, the drug ought necessarily to prove fatal, and yet modern experience has shown that in these cases it is tolerated, even in excessive doses. My impression is, that its remedial action in these cases depends on its stimulating the heart, subduing its irritability, and increasing the tonicity and contractility of the heart and capillaries, so that the brain is better supplied with blood, and the effusion of its more fluid parts, which gave rise to the "wet brains" of habitual drunkards, is avoided.

6th. It has been proved by experiments on animals (Dr. H. Jones) that when death is induced by digitalis, the heart is not flaccid and distended with blood, as is commonly supposed, but, on the contrary, empty, contracted to the utmost, and in a state of tonic spasm. All these facts confirm my view as to the action of digitalis; and if it is correct, its practical importance in relation to the treatment of cardiac dilatation can hardly be over-estimated.

The preceding extract places before us clearly all that can be said on the action of digitalis, that, although long, it will not, I believe, be found too long to claim the careful attention of your readers. Having myself observed the clinical facts stated by Dr. Fuller, I would, with much deference, beg permission to endorse the practical views thus put forth on the therapeutic value of digitalis.

ON THE INDUCTION OF PREMATURE LABOR IN CASES OF PREGNANCY COMPLICATED WITH ALBUMINOUS URINE, DROPSY AND AMAUROSIS.—Dr. Lee related the case of a lady, whom he visited in consultation with Mr. Bowman and Dr. Ferguson, suffering from disease of the retina and albuminuria. From having previously seen a case in St. George's Hospital, in which albuminuria and dropsy, occurring in a pregnant female, had disappeared on the spontaneous expulsion of a dead fœtus, Dr. Lee advised the induction of premature labor. This was not at once carried out, but after some delay some convulsion occurred, and it was then determined not to wait any longer. At this time there was amaurosis, albuminuria and œdema of the face. The membranes having been punctured, labor ensued, and a dead fœtus of four months was expelled. After this the albumen gradually diminished, and the vision improved. In a postscript, Dr. Lee reported the particulars of an analogous case, for which he is indebted to Mr. Bowman.—*Lancet.*

Infantile Paralysis.

Mr. Holmes Coote has published (Lancet, July 11, 1863) some very interesting remarks on this affection. He limits the term "infantile paralysis" to one of the effects produced by the functional disturbance of the nervous centres. The absence of any recognized morbid change of structure in those cases, where post-mortem examination has been made, is rather owing to over defective means of observation than from no such morbid change existing.

The most common exciting cause of this affection, Mr. C. thinks, "is the irritation of first dentition, but I have known the same effect to be produced by the second dentition, and have witnessed symptoms of analogous character, though not so strongly marked, in the adult. A young lady, twenty-two years of age, whose teeth were crowded together and partly decayed, experienced occasional attacks of numbness and loss of power in one upper extremity recurring at intervals, until she had been relieved by an experienced dentist of the stumps of a number of decayed teeth, which had been the source of pain. But the attack may be quite sudden, without any recognized premonitory symptom. Thus an infant at the breast will appear to have momentary faintness, or may be taken up by the nurse as usual after an apparently uninterrupted night's rest, and in both instances the limbs may be found paralyzed

"On May 7th, 1863, I saw a boy, aged eight, at the Orthopædic Hospital, in whom the left lower extremity was smaller in circumference, shorter, and colder than the opposite, the foot being in the position known as equino-varus. His mother gave the following history: At two years of age, when to all appearance well, he suddenly fell down stairs from a landing whereon he was playing. When taken up, it was found that the limb had lost all power, and and he has never walked since.

"On the same day I saw another boy Henry M——, aged four, suffering from talipes equino-valgus of the left limb. The mother said that the child began to walk when about twelve months old. He was then, to use her own words, "taken off his feet" by vomiting and purging. For two years he was quite unable to walk. He was galvanized at another hospital, but without avail. After a time he became stronger in the back, and could sit up; finally he recovered the use of all the limbs, except the left lower extremity, which has continued weak, cold, and deformed. The limb is smaller than the opposite in circumference by a quarter of an inch, and shorter by half an inch.

"The same effects have been referred to the influence of eruptive disorders on the frame. On May 18th, 1863, I saw a boy, named Richard G——, aged six, suffering from talipes equinus. The mother said that six weeks after having had the measles he went to bed as usual. The next morning she found the right leg completely paralyzed. After a time some power returned in the muscles of the calf, and the heel was drawn upwards. The limb was smaller in circumference, but not materially shorter.

"I do not believe that 'talipes equinus' is congenital as a deformity. Now, there are two classes of cases, which, though allied as indicating disturbance of the nervous centres, and in both instances followed by contractions of the limbs, are yet separated by important points of difference. In the first, the limbs are spasmodically contracted, the thighs and legs bent, the heel raised, and the movements are irregular, but there is neither atrophy of the limb nor diminution of temperature. In the second, the heel may be raised or the foot otherwise turned; but the limb is shorter, smaller, colder, and wasted. In the first, the muscular degeneration and conversion into fat is a slow process, extending over many years. In the second it is rapid, the growth and developement of the limb being arrested from the very moment of the stroke. The first is an instance of disturbance of the control of the will over muscular power from *cerebral* irritation, such as would be excited by the deposit of tuberculous matter in the membranes about the cerebellum; the second to be an instance of lesion of the *spinal cord*. And although no very clear lines of demarcation can in all cases be drawn between the two, yet we find that in the first class of cases the patients are often morbidly excitable, irritable, and prone to laugh or cry; while in the second class, after the first symptoms have subsided, the functions of the brain do not seem to be affected.

"I fancy that in these cases of cerebral disturbance there is often a congenital defect, the development of the brain and the manifestation of the intellect being imperfect. I am now attending the daughter of a lady, whose case illustrates this point. The child is about ten years of age, and she was put under my care in consequence of her ungainly walk, the knees being slightly bent, and the feet having an inclination inwards. I found that the muscles of the calf were so much contracted that the foot was held at right angles to the leg, and the heels came with difficulty to the ground. The control of the will over the muscles generally was imperfect. The child could learn a short lesson, but was not studious; was subject to violent fits of temper, and never had shown affection for any about her. The general aspect was such as warranted a prediction that these peculiarities might become stronger with age.

"The ultimate effects of infantile paralysis, dependent on lesion of the spinal cord, as it affects the limbs, are as follows:—

"In by far the greater number of cases the loss of power is in the lower limbs. At the commencement the paralysis may be general and complete, but usually all the limbs save one recover as mysteriously as they were attacked. Neither sex nor side of the body seems to exercise any influence. Boys and girls, right and left side of the body, suffer equally. But the paralysis is rarely complete: the foot rarely hangs powerless; usually the muscles of the calf retain some power, and pull up the heel (talipes equinus paralyticus); or the foot may incline inwards (talipes equino-varus); or the muscles of the calf and peronei may pull it outwards (talipes equino-valgus); or finally the anterior tibial muscles may overcome the paralyzed muscles of the calf, producing talipes calcaneus.

"As patients grow up, the great annoyance which they experience is the liability to sprains. All the ligaments are weak and elongated; and if a person so afflicted tread on a stone or any rough body, he gives the limb a twist which lays him up for days.

"The affections may be limited to an upper extremity, in which case, usually, the deltoid muscle becomes paralyzed, and the humerus drops from the socket; or in rarer instances, the muscles of the upper arm become wasted, the forearm being well formed as usual.

"There are cases in which the affection comes on slowly and progressively; others in which first one limb and then another is attacked, but these are comparatively rare. I saw a boy, aged sixteen months, in whom the right heel had been drawn up when the child was five months old. That attack passed away; at the present time (May 18th, 1863) the left heel is contracted.

"In all these cases, the treatment consists in an attempt to remove the source of irritation, whether it be seated in the brain or spinal cord, or whether there be any amount of reflex irritation. As a general rule tonics are not indicated; but purgatives and small doses of tartar emetic often relieve symptoms. The temperature of the limb must in all cases be carefully maintained; and when, finally, the contraction has become permanent, the proper tendons should be divided, and elongated by subcutaneous tenotomy and extension, the foot being held in proper position by the aid of irons. The details of the treatment would lead me into particulars which are already well known to the profession, and which require modification according to the nature of the case."—*Am. Jour. Med. Sciences.*

Parisian Medical Intelligence.

THE thermometer has been higher, and the river Seine lower, for the last fortnight than had ever, during the present century, been the case. The health of the town has been somewhat disturbed in consequence, and the authorities no less disturbed, lest the town should be made aware of its own exact sanitary condition. One of your cotemporaries has got into the blank books of the Home-Office for an article on the subject, and has experienced an angry tug from the official check-string. "Your number of the 11th," says the communicated note, "contains erroneous details relative to the diseases which now prevail in Paris, both in the hospitals and private houses. Diarrhœa and dysentery are habitual at this time of the year, when the heat is extreme, on account of excess in drinking and from the use of fruit. The cases which have occurred have nothing of an abnormal or alarming character. Isolated cases of cholera are met with every year; up to the present time only two have taken place, evincing nothing of an epidemic tendency. With regard to typhoid fever, many cases have occurred, but it is incorrect to say that they are of a dangerous character; on the contrary, medical men agree in affirming the mildness of the disease on the present occasion. At the Hopital de la Riboissier, where the writer of the article has found a rate of mortality of fifty per cent, out of 133 patients treated for fever, there have been only five deaths. It is to be regretted that a journal which has the means of being well informed should publish statements of a nature to cause uneasiness in the public mind, without verifying their exactitude."

In examining several of the points connected with the yellow fever and its supposed causes, M. Melier called attention to a fact which is highly interesting and suggestive—namely, that the malady more generally rages in those parts around which the phosphorence of sea is most prevalent. M. Melier likewise pointed out a fact noticed first by M. Lancereaux—namely, that the pathological lesions observed in yellow fever are exactly those of phosphoric poisoning, and that the greater part of those persons who have died from the baneful effects of phosphorus have presented the very condition of liver considered as characteristic of yellow fever.

A paper on cutaneous absorption, by M. Parisot, was read at the Academy of Sciences, on Monday last by M. Claude Bernard. The conclusions which are established by the researches of M. Parisot are—1st, that salts such as iodide of potassium, chlorate of potash, yellow prussiate of potash, sulphate of iron, as well as the coloring matters of rhubarb, dissolved in water, are not in any way absorbed into the skin, even after two hours' immersion, for not the slightest trace of their presence can be found either in the urine or in the saliva, by which they are generally eliminated, and in which they may usually be found when they exist at all in the system. 2nd, the poisonous vegetable alkaloids, digitaline and atropine, in solution are likewise not absorbed into the skin, for a prolonged sojourn in a bath containing a strong dose of these substances does not give rise to any symptoms of poisoning.

The vine laborers in the south of France have for some time been suffering from a peculiar form of ophthalmia, differing in some respects from those forms with which we are familiar, the medical men of those districts have been able to trace the evil to the employment of sulphur for the prevention of vine disease.—*London Lancet.*

On Impregnation.

Dr. F. J. W. Packman writes as follows to the *London Lancet:* Sir—It is a well-known fact that queen bees lay female eggs first, and male eggs afterwards. Also, that if her conception be protracted beyond a lunar month from her birth, she will produce males only.

In the human female conception in the first half of the time between menstrual periods produces female offspring, and male in the latter.

Numerous instances of females being "out" in reckoning the time of their parturition gave rise in my mind to a suspicion of the existence of some "law" as a cause; and from the frequency of a male child coming, I usually concluded and predicted that a late case was due to "an idle boy," and rarely failed in being right. The law above stated explains these irregularities; and its existence has been confirmed by a friend on whose testimony as to its being a fact implicit reliance may be placed.

That law of generation applies also to animals and probably to all animated beings.

Whether regarded as applicable to produce a male or female population, an heir or an heiress to a title or an estate, or successor to a throne,—or to the incalculable advantages of breeding male or female stock and ultimately rendering the whole feminine creation subservient to the necessities and will of man, it must tend to raise our admiration of the Creator's power of regulating our existence by laws even more mysterious than those yet known to us.

Evidence of the universal existence of such a law, and of its applicability to the purposes of man in "affording a check to an overpopulating of the globe," counterbalancing the effects of war and emigration by raising a male population in proportion to the demand instead of females, and in breeding male instead of female flesh for the service and sustenance of our race, may be naturally expected in time, as its bearing among animated nature becomes understood and developed.

Hoping that this communication may serve to increase our physiological knowledge of uterine functions, I beg your permission to have it inserted in your scientific and valuable journal.—*Med. and Sur. Reporter.*

* * *

An Easy Method of Reducing a Dislocated Humerus.—Dr. Garms describes the following modification of Cooper's procedure. The patient is laid upon the floor, not on his back, but on his belly, some cushions intervening. A towel is attached to the humerus above the elbow, and another, passed around the upper part of the humerus, is given into the hands of the assistant, standing on the side of the dislocated arm. The operator, sitting down on the floor, on the same side, lays hold of the lower towel, and applies the heel of the foot lying nearest the patient to the axilla. He makes extension backwards and downwards, while the assistant draws laterally. The dislocation is thus reduced with surprising facility, the agency of chloroform not being required. The advantage of this modification is that extension backwards may be far more easily executed than when the patient is in the supine position; and this is the direction required in dislocation forwards, which prevails in the great majority of cases. For dislocation backwards, which is very rare, Cooper's procedure is the best.—*Brit. and For. Med.-Chir. Rev.*, July, 1863, from *Archiv. der Heilkunde*, No. 2, 1863.—*American Journal of Medical Sciences.*

On Blood-letting in Apoplexy.

BY DR. THOMAS K. CHAMBERS, PHYSICIAN TO ST, MARY'S HOSPITAL, ETC.

Perhaps no question is more serious than that regarding the propriety of taking blood in case of coma, apoplexy, and paralysis. Delay may be irretrievable; yet a false step may be equally fatal.

In the first place, let us clearly understand what is the *modus operandi* of the means you design to employ, and then what morbid conditions it can and what it cannot relieve.

The two most marked immediate effects of blood-letting are, diminuation of the force of the heart, and contraction of the area of the blood vessels. That these are the most important and most direct of the resulting phenomena, is shown by their being in direct proportion to the dose; the more rapid and copious the detraction of blood, the more certainly they follow. Both natural and artificial hemorrhage thus produce, first syncope, or failure of the hearts-power and then a slackening and arrest of the blood-stream by contraction of the vessels.

What now are the morbid conditions in apoplexy which such results as these are likely to benefit? I am not going to enumerate all the causes of apoplexy, because such a recapitulation would be very unsuited for the purpose of the present lecture, and, if they came into your head at the time you were in presence of your patient, would serve rather to confuse than to clear your ideas. A most practical thing to do will be to divide them into three heads with reference to the treatment to be pursued; and I think you will find them all capable of being classified under *destruction* of the nerve-fibres, *compression* of the same by a *solid*, and *compression by a fluid* substance.

Now, if the nerve-fibres be destroyed, as in the case, for example, in what appears after death as a softening of the cerebral substance, it seems unadvisable to take away the pabulum of nutrition; for you would be diminishing the power of the remaining brain-tissue to take the place, as far as it can, of that which is irretrievably lost. Nor are the immediate effects of blood-letting likely to be advantageous; for in these cases the force of the heart is not morbidly augmented, and the blood-stream is in general rather deficient in quantity already. We shall probably be only adding to the disease by substracting blood. When, then, we have reason to think from the previous history that there is old diseases leading to softening of the cerebral substance we should abstain from bleeding altogether. If, for instance, there have been before the present attack a state of mental excitement, or severe headache, or feverishness; or if the gait has been unsteady, the speech thick and stammering; if there have been ear ache, or a purulent discharge from the auditory meatus; if previous to the apoplexy, there have been convulsions; if the patient be scrofulous, or of a scrofulous family, we must take all these circumstances as warnings against the lancet—altogether, probably, but certainly against its immediate use.

Supposing, however, that we have no evidence of such a diseased state of the cerebral substance, and can allow ourselves to conjecture that the nerve-fibres are more compressed than permanently disorganized, then we have further to consider whether the compressing substance is *solid* or *fluid*. By a solid likely to cause apoplectic paralysis, I refer to a clot of blood which has been thrown out long enough to become entirely coagulated. This is the only solid sufficiently common as a cause for us to consider. Is it likely you have to deal with anything of this sort? Is there in the patient's brain before you at the moment a clot of blood such as you see put up in bottles in the museum, and often also in the dead house? Do not be in too great a hurry to conclude so at once. Four days ago you saw on the dissecting table the corpse of a man who more than thirty-six hours previously had fallen down stairs, and was supposed to have fractured his skull; his cranium was uninjured, the fall was apoplectic, and there was a quantity of fluid blood pressing upon the brain. You see by such instances as these that blood extravasated from the vessels inside the body does not coagulate immediately, as it does when drawn from a vein; it remains long, and may remain much longer than it did in that case, in a liquid state. It takes, not minutes, not hours, but I may really say days, to become solid. When the apoplexy or paralysis has lasted for days, then indeed, but not till then, you may conclude that a clot has formed; and then, and not till then, may you pronounce that the force of the heart's action will not increase the oozing of blood into the focus of pressure. After that—after you have a solid, and not a fluid pressure, to deal with—I am willing to concede, and anxious to impress upon you, that abstraction of blood is useless and hurtful; but till then I believe its immediate influence to be a beneficial one, and in the right direction.—Therefore do not conclude that a clot is formed, or that bleeding is for that reason useless, till at least twenty-four hours are passed after the fit.

Supposing that a fluid has to be dealt with, you are perhaps anxious to know of what nature it is; and, in point of fact, I find that I am constantly asked by students, when they see a case of apoplexy in the wards, whether it is serous or sanguineous apoplexy. I say to you now, what I always say then, that there is no possibility of certainly distinguishing them; and that, fortunately, it is of no importance to either physician or patient, to do so, as far as the immediate treatment of the fit is concerned. One, indeed, forms a clot after some time, which we have been just now discussing; and the other remains liquid. But that does not affect the question of the comatose condition now before us. I will speak, then, of "fluid," not distinguishing blood or serum, or bloody serum or serous blood, but clubbing them all, as must be done by practical men, together. When, then, there is fluid compressing the nerve-fibres, I feel sure that there is an influence for good in blood-letting, accompanied, of course, by a danger, as all active treatment is, but still a decided influence for good. It is capable of lessening the force of the heart, which is driving the blood towards the place where it is oozing out either as serum or complete blood, and of diminishing the calibre of the vessels that allow it to pass. The anxious question is, how to secure those advantages without the necessary accompanying dangers, without adding too great an additional shock to the already shocked nerves, without weakening fatally the already weakened general system.

You will observe, by the example of the patient I have used as my text, that the first effect of an apoplectic seizure is the violent blow to the nervous system above mentioned. The poor woman was damp and cold, and pale as a corpse; the pulse and heart beat quick, and irregularly, and weakly, just like those of an ox stunned by the slaughterer's pole-axe. Had she been bled then, she would certainly have died outright; and moreover, even had she survived, there was no object to be gained by it; for the heart was weak enough, surely. But after a time—seven hours in this instance, sometimes sooner, sometimes later—the heart and pulse recover, and the blood must be driven against the ruptured or oozing vessels with the same force which originally caused them to rupture or ooze. Now is the time to step in with the lancet. You prevent by it what often happens to apoplectic patients if left alone entirely; you prevent the relapse into coma which frequently follows an apparent partial recovery during reaction; you prevent it in a very intelligible way, by lowering the force of the blood-stream, which the injured vessels have already shown themselves unable to bear. This was the time, and this was the object, of the blood-letting in our patient's case. So complete was the apoplexy, by such a slender thread was she hanging on to life, that I believe the slightest additional extravasation of fluid in the cranium must have been fatal; and to this judicious use of the lancet by our house-surgeon, Mr. Chisholm, I attribute the patient's life.

You will observe the bleeding was not a large one—only eight ounces when reaction first occurred, and eight ounces again in the evening, when the pulse was again getting hard. I mention this to warn you against a mistake into which you might be led by an old and rather questionable maxim, "*Extremis morbis, extrema remedia.*" You might be disposed to say, the more the apoplexy, the more bleeding. Such a notion would be most dangerous. A small bleeding accomplishes the object in view; and a large one can do no more, while it seriously abridges the vital powers. Above all things don't open the temporal artery; it is nearly equivalent to cutting your patient's throat.

I much prefer, in these cases, venesection to cutting the temples or the nape of the neck, as is sometimes done. What you want to do is to affect the general system, and particularly the centre of circulation—an object which is attained with most rapidity and certainty by opening a vein. You are aiming to prevent blood from being driven into the skull, not to extract that which is already in; at least, if you are striving after the latter result, your anatomy and physiology ought to have taught you better.

The effect of bleeding during the collapse, before reaction has taken place, is, as a rule, sudden death, especially when the heart or its valves are diseased. The effects of *over-bleeding* at a later period are, an excited condition of the circulation, and consequently a more violent impetus against the brain; and at the same time a more watery state of the blood, and consequently a greater tendency to serous effusion. As it is impossible to tell whether red blood or serum is exuded in the cranium, you run the greatest possible risk of augmenting the very evil which your injudicious zeal was intended to obviate.

Perhaps you may say, "I am going to bleed my patient again, for the sake of encouraging absorption; and surely absorption of the clot should be aimed at." Now, I am not so sure of that; if it were absorbed sooner than the nerve-fibres were ready to resume their functions, something else must be effused to take its place in the cranium. At all events, I am quite convinced that such absorption is best left to the reviving powers of nature; and you are diminishing these by unnecessarily depriving the body of blood.

In apoplexy and central paralysis, remember that you are dealing with diseases where nature still retains an inherent power of repair; in a moderately healthy constitution, the tendency is to get well. Do not, therefore, attribute all cases of recovery to the means used, unless you can give a probable physiological explanation of their beneficial action; but if you can thus rationally justify your treatment, do not hesitate to feel satisfied with it whether successful or unsuccessful.

There is no necessity for being idle while you are awaiting the time to bleed. Stimulant injections and purgatives, hot water and mustard poultices to the feet and legs, a careful arrangement of the clothing and bedding, so as to prevent congestion of the head, with keeping up the animal warmth and keeping the friends quiet, will amply occupy your time. It is also conducive to the end you have in view, to shave the head and apply cold lotions to the skull.

After reaction has returned, you will find advantage in the application of ice to the head; it is physiologically correct, and is often a great relief to the patient. You may remember that this poor woman used the first power of speaking that returned to her in begging me to continue the ice; whenever it was applied, it induced sleep, and was most agreeable. What a strange state a person must be in for ice to the head to be agreeable! But so it was.

When, then, you are called in to a case of apoplexy, let these considerations pass through your minds:

1—Does it depend on destructive softening of the cerebral substance? If so, I must not let anything persuade me to bleed.

2—Has the effusion taken place so long ago as to be, if blood, coagulated? If so, again, I had better abstain.

3—If it be fluid, bleeding is very mnch to be desired; it may prevent increase of the infusion, and relapse.

4—But to make bleeding most useful and least hurtful, the proper time must be selected, namely: the time when the heart regains its strength.

5—The best guide is the circulation. The sharpness and hardness of the pulse and heart, as felt by you, are a faint picture of the sharpness and hardness of the pulse, as felt by the patient's brain. With your fingers on the wrist, let your mind travel into the interior of the skull.—*British Medical Journal—Buff. Med. and Surg. Journal.*

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CRACKLING OF THE JOINTS IN A PREGNANT WOMAN.—(Under the care of Dr. Gibbs.)—On former occasions we have noticed isolated instances where there was well-marked crackling in some of the joints. Rheumatism or rheumatoid arthritis would appear to have much to do with the production of a state giving rise to this condition, but it may occur in other affections not necessarily rheumatic.

One of the most striking instances of this crackling which has come under our notice was admitted into the West London Hospital in the early part of January. The patient, Martha B———, aged twenty-seven, was enciente with her fifth child, and was troubled with the most intolerable prurigo, to which it appeared she had been subject at each of her pregnancies. It was now more severe than on any former occasion, and she felt as if she could scratch herself incessantly to get rid of it. She drew Dr. Gibb's attention to a crackling in her right and left knee-joints, much more noticeable in the former. On flexing and straightening the right knee, the crackling was not only felt to be very rough and grating, but it could be heard. There was some effusion also into this joint. The right elbow, wrist and shoulder joints were similarly affected with crackling, but to a much milder extent.

The patient had the peculiar aspect of a person who has been long subject to chronic suffering from joint disease; yet on inquiry it was elicited that she had never been affected with rheumatism, although she had had pains in the joints. Her father is subject to arthritis, probably rheumatoid; and it is more than likely that the diathesis has been inherited, and is thus manifested by an alteration in the condition of the synovial membrane, which has given rise to the sensation of crackling. There was no effusion in any other joint than the right knee, nor was any joint painful. She had palpitation of the heart, wholly functional, for there was no evidence of organic disease.

Besides othermeans, she was ordered a mixture containing the bicarb onate of potass (fifteen grain doses), and small doses of tincture of iodine and iodide of potassium; and a liniment to rub over the right knee-joint. Under this treatment she visibly improved, and the crackling had greatly subsided when she was last examined.—*London Lancet.*

Eczema of the Entire Surface.

E. H——, a woman aged twenty-five, was admitted on the 21st of January last, in consequence of an eczematous eruption which extended over nearly the entire body. The face was much swollen, and of very red color; and about the ears, which were very much inflamed, there was a profuse watery discharge. The scalp was also completely covered by the eruptions, as well as the neck, chest, hands and arms. Upon the trunk and lower extremities the eruption was not so complete, although in places of a very severe character.

The woman stated that the disease began about four months previous; that she had been under medical treatment from its commencement, but that nothing she had taken had done her any good and she had been gradually getting worse, until she was unable to attend to her duties, when she applied at the hospital. Being of a full habit, she was ordered saline aperients; and Dr. Logan, being of opinion that the disease was of a parasitic origin, precribed iodide of sulphur ointment, with a lotion of bicarbonate of soda, to be used every morning to remove the ointment, which was then reapplied, and again at night.

At her next visit the eruption on the face was slightly better, and the discharge from the surface of the ears considerably diminished; but the scalp was no better, and owing to the difficulties of applying the remedies the hair was ordered to be cut off. She was now ordered a mixture of liquid potassæ and infusion of quassia three times a day, and to continue the ointmentand lotion.

Under this treatment she rapidly improved, and by the 4th of March the eruption had entirely disappeared, when she was discharged perfectly cured.

This case is interesting on account of the extensive surface affected by the eruption, its severe character, and the rapidity with which the patient recovered under the treatment above-mentioned, which latter circumstance is strongly confirmatory of the view taken of its origin.—*London Lancet.*

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SYPHILIS IN THE ENGLISH ARMY.—From the Army Statistical Reports it appears that the annual admissions into hospital from venereal diseases amount to 206 in every 1000 Cavalry soldiers, 250 in the same number of Foot Guards, and 277 in every 1000 Infantry of the Line. The average proportion for the Army at home is 267 per 1000 or more than one-fourth of the whole number. It is calculated that on the lowest average each man is fifteen days under treatment. Thus 688 men out of the home force are always in the hospital from this cause alone—a number equal, or nearly so, to the strength of a regiment on the home establishment; and the money lost to the State is calculated at nearly £14,500 a year. The further loss from subsequent disease and invaliding, and the injury to the State from the life-long deterioration of the individual and from the hereditary causes of transformed syphilis and scrofula conveyed to future generations, are beyond calculation. In India the case appears worse than in England. The proportion of venereal cases constantly in hospital is usually from 20 to 25 per cent, of the total sick. At some of the larger stations it much exceeds this. At Bangalore and Roorkee the proportion at the time the report was made was 50 per cent; at Dinapore it was as high as 53 per cent.; and Dr. Maclean testified that a few years ago in the 1st Madras Fusiliers the amount of syphilis was equivalent to the withdrawal from duty of one-fourth of a company daily.—*Lancet.—Am. Med. Times.*

ORIGINAL PAPERS.

HISTORICAL SKETCHES.

BY V. J. FOURGEAUD, M. D.

X. GALEN.

"IN ROME," says Galen, "no one seeks after truth; money, public offices and voluptuousness are the sole objects of life. He who devotes himself to the acquisition of knowledge is considered insane. Among those who appear to take an interest in me, I am often blamed for applying myself too closely to researches after truth. They say that I will never gain any advantage either for my friends or for myself, until I throw aside this habit, and pay my court to the great in the morning, and sup with them in the evening. It is, indeed, by such attentions that acquaintances are made, protection is insured, and practice obtained. It is thus, rather than by merit and learning, that confidence is inspired. And how can it be otherwise? Who are the judges between us? They are men who pass every hour of their lives in frivolous and disreputable occupations. When ill, they do not seek the attendance of the best informed physicians, with whom, when in health, they had no acquaintance; but they call in those who had been their boon companions, who flatter them; give them cold water, if they so desire; baths, if they wish; ice, wine, in a word anything they fancy."

"The mere compounders of mixtures for painters and perfumers, cobblers, dyers, carpenters, and blacksmiths, forsaking their respective occupations, assume the title of physician, and become at once practitioners of medicine!"

Such was the condition of the medical profession, as depicted by himself, when the illustrious Galen arrived in Rome.

Claudius Galen was born at Pergamus, in Asia Minor, in the 131st year of the Christian era. His father, an architect and geometrician, a man of lofty and sound erudition, was his first instructor. The preceptor soon discovered the rare intellectual endowments of his pupil, and neglected nothing that could encourage and develop them. At seventeen years of age, and when Galen had already studied the philosophic systems of Zeno, Plato, Aristotle and Epicurus, a dream determined his father to choose the medical profession for him. He was, therefore, placed at the Asclepion of Pergamus, and commenced the study of anatomy under Satyrus, a physician of distinguished ability. Stratonius, a Hippocratic dogmatist, and Æschrion, an empiric, instructed him in the principles of their respective schools. After the death of his father, and when Galen had attained his twenty-first year, he left Pergamus for Smyrna to attend the lectures of Pelops and of the Platonist Albinus. Continuing, afterwards, his travels for purposes of improvement, he arrived at Corinth, and became the pupil and assistant of Numesianus. Subsequently, after visiting Palestine and other countries, he repaired to Alexandria, where the best opportunities for learning were afforded, and where the most celebrated medical schools still existed. In fact, even at that late epoch no medical education was considered complete without a sojourn at that great centre of the scientific world. Young Galen was too earnest a seeker after knowledge, his love for the profession was too ardent for him to neglect this alma mater of anatomy. It was there that he acquired the most important part of his medical knowledge under the tuition of Heraclianus, of whom he speaks in the highest terms. (*De natura humana.*) At the age of twenty-eight he returned to his native land, and was appointed physician to the gymnasium by the priests of Æsculapius. The athletæ and gladiators furnished numerous opportunities for the display of Galen's surgical skill, which were not lost by him. He there distinguished himself by a new method of treating wounds of the nerves by which he was successful in every case. After holding that position for a few years, political disturbances occurred at Pergamus, which drove him forth to seek another home. He had then attained his thirty-fourth year. The encouragement and hospitality offered at Rome to Grecian physicians induced him to choose that imperial capital as a suitable field for his genius.

Galen's evident superiority in every department of the healing art soon obtained for him an eminent standing. Eudemus, the peripatetic philosopher, the prætor Sergius Paulus, the consul Boetius, Barbarus, uncle of the Emperor Lucius Verus, Severus, then Consul, afterwards elected Emperor were among his earliest patrons.

The following characteristic anecdote, given by Galen (De locis affectis, lib. v., c. 8,) informs us how he gained the confidence of his patients:

"Soon after my arrival in Rome, Glauco the philosopher took a great fancy to me, in consequence of my reputed skill in diagnosis. Meeting me accidentally in the street and shaking hands with me, he remarked, 'I have fallen upon you opportunely. I wish you to visit with me a patient in this neighborhood whom I have this moment left—the Sicilian physician whom you saw walking with me some days since, and who is now ill?' I inquired of him what ailed his friend, when, with his habitual candor he replied, that Gorgias and Apelas had spoken to him of my skill in diagnosis and prognosis, which appeared to them more like the result of divine inspiration than of medical science: and that he wished to know for himself whether I really was thus skillful. He had hardly done speaking before we reached the door, so that I had no opportunity of replying. I have often said that on some occasions the signs of disease are certain, at other times they are ambiguous, and require to be considered again and again. As we entered, I observed a servant carrying from the sick chamber a vessel containing a thin bloody sanies, like the recent washing of flesh, a sure evidence of diseased liver. Without appearing to notice this circumstance, I proceeded with Glauco to the patient's apartment; when placing my fingers on the wrist of the sick man, I examined his pulse in order to determine whether the attack was inflammatory, or simply a weakness of the affected viscus. As the patient was himself a physician, he remarked that he had recently been up, and that the effort of rising might have accelerated the pulse; but I had already discovered the evidences of inflammation; and seeing on a recess in the window a jar containing something like a preparation of hyssop in honey and water, I knew that he had mistaken his disease for pleurisy; in which, as in inflammations of the liver, there is usually pain under the false ribs. He had been led to this opinion, as I at once perceived, by experiencing this pain, by his short and hurried breathing, and by a slight cough. Understanding the case, therefore, and turning to good account what fortune had thrown in my way, in order to give Glauco a high opinion of my ability, I placed my hands over the false ribs, on the right side of the patient, and at the same time declared this to be the seat of pain, which the sick man admitted to be correct. Glauco, supposing I had made this discovery merely by examining the pulse, began to express surprise. But to increase his astonishment, I added, 'Inasmuch as you admit the existence of pain at this spot, I wish you further to say whether you are troubled with a slight cough, and whether your cough is not dry, without sputa, and occurring at long intervals. While I was yet speaking, the sick man was seized with a cough such as I had described; whereat Glauco was exceedingly excited, and no longer able to contain himself, began to vociferate in praise of my abilities. 'Do not think,' said I, 'that these are all the discoveries my art enables me to make; there are others yet to be mentioned, which will elicit the testimony of the patient.' Then turning to the latter, I resumed: 'Is not the pain in this part increased, and accompanied by a sense of weight in the right hypochondrium, whenever you take a full breath?' At hearing this the patient also was surprised, and was as loud in my praise as Glauco. Seeing fortune still smiling upon me, I was desirous of making some remark in reference to the shoulder, which appeared to be drawn downwards, as often occurs in severe inflammations, as well as in induration of the liver; but I did not venture to speak on this point, fearing to diminish the admiration which I had already excited. Nevertheless, I touched upon it cautiously, saying to the patient, 'You will not be long in feeling the shoulder drawn downwards, if perchance you do not find it so already.' When he admitted this symptom also, seeing him greatly astonished, I said, 'I will add but one other word to show what you conceive to be the nature of your complaint.' Glauco declared he would not be surprised if I should do even this. But the patient, overcome with wonder at such promise, observed me closely, waiting for what I should say. I told him he had taken his disease for pleurisy. This, with a further expression of surprise, he admitted to have been his own opinion, as well as that of his attendant, who had been fomenting his side with oil, for the relief of the disease. From this time forward, Glauco entertained the highest opinion both of me and of our art; for, having never before come in contact with a physician of consummate ability, he had hitherto formed but an humble estimate of the profession."

Fully aware of his superiority over his professional contemporaries, Galen did not hesitate to claim pre-eminence over them. Without waiting for the award of public opinion, he at once assumed the position of supreme judge and dictator in all matters appertaining to medicine. His extraordinary erudition, his glowing eloquence, his knowledge of anatomy, his wonderful tact at the bedside, his studious habits and persevering industry enabled him to sustain himself with éclat against the combined efforts of his adversaries. All the various systems which had previously governed medicine, had then their advocates and followers in Rome. Although the Methodics were the most numerous, there were still many zealous Dogmatists, Empirics, Pneumatics and Episynthetics, while a countless host of charlatans, who knew and cared nothing about theories and systems, completed the list. The rapid promotion of Galen and the high stand taken by him soon excited the jealousy and enmity of all. Treating the Quacks with supreme contempt, Galen showed his superiority over his other opponents by opening an amphitheatre of anatomy, in which his brilliant demonstrations soon gained for him still more extensive reputation. But this, far from silencing his enemies, caused them to combine in renewed efforts against this extraordinary man.

Unfortunately, Galen took no pains to gain the esteem and friendship of the honorable members of the profession. In his disdain for his confréres, he excepted none; and by his boasting, his jealousy and his vehemence, he alienated even the few who would have naturally clung to him. It is not surprising, therefore, that Rome became a disagreeable residence for him; as he informs us in his work on "Prognosis," where he boasts of cures performed by himself on patients who had been unsucessfully treated by other physicians, accuses his professional brethren of base jealousy and stupid ignorance, denounces them as thieves, and closes by saying that "after unmasking them, he would shield himself from their hidden and evil designs, by abandoning the great and populous city—where a man has consideration only in proportion to the luxury he displays, where a shameless charlatanism usurps the confidence of a stupid and frivolous public—to seek a home in some smaller city, where the citizens are mutually acquainted, and therefore know the birth, education, fortune and private life of each other."*

Thus it was that, after a residence of four years in Rome, his patrons having been driven from the place by a malignant epidemic which was then raging, Galen, also, left the capital in disgust and embarked for Greece. Still continuing his scientific pursuits, he visited various countries of Europe and Asia, in order to study the medicaments of each on their native soil. But before the close of the year, the Emperor Marcus Aurelius, who was then in Aquileia, superintending with his brother Lucius Verus, a military expedition against the Marcomanni, required the services of the physician of Pergamus as medical director of the army. Complying with the wishes of his powerful patron, he journeyed on foot through Thrace and Macedonia, and arrived in due time in Aquileia. Soon after this, however, Lucius Verus fell a victim to the epidemic which had made its appearance in his camp, and the intended expedition being consequently deferred, Galen, who had in the meantime received the appointment of physician to Sextus and Commodus, the sons of the Emperor, returned to the capital, where he resided until the commencement of the third century. He died at the age of seventy, whether in Rome or in his native country is not positively known.

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* Galeni, de praecognitione liber. Renouard, op. cit. p. 203.

Of all the physicians of antiquity, Galen was the most learned, and after Hippocrates, over whom he had the advantage of possessing the accumulated experience of four important centuries, the most celebrated. Well versed in the works and theories of his predecessors, he pronounced them all defective, and after having exposed their errors, he established a system of his own. Galen was a thorough Dogmatist. Although in his book "*De optima secta*," he asserts that every general precept should have truth for its basis, although he was well aware of the futility of *a priori* theories, he promulgated a system no less hypothetical than those of his predecessors, full of subtleties, and by far the most complicated of antiquity. In doing so, he successfully demolished the systems which had hitherto existed, save that of Hippocrates, which he pretended to explain and improve. "I have," says he boastingly, "accomplished for medicine what Trajan has done for Italy in constructing good roads and bridges throughout the country. No one before myself had given the correct method for the treatment of diseases. It is a fact that Hippocrates indicated the path, but as he was the first who discovered the true road, he could not do all that was desirable. His writings lack order and detail. Like the ancients, he is often obscure, from wishing to be concise. He opened the way, but it was necessary for another to enlarge it and render it practicable.*"

Was Galen successful in the task he so arrogantly undertook? According to the verdict of thirteen successive centuries, during which his doctrines held supreme sway in our science—he was. But was that verdict just? A brief exposé of his system will show.

Galen applied the term "*element*" to the most simple and minute constituent parts of bodies. The element was so simple that the understanding could not appreciate it, nor could it fall under the observation of the senses, on account of its minuteness. But the immediate secondary elements, fire, air, water and earth, could be studied. Each of these was endowed with a quality peculiar to itself. Fire was warm, air cold, water humid, earth dry. These qualities (called the first qualities) being the *necessary conditions of the elements*, their mere existence in bodies, *proved that the elements also existed*. The first qualities were never in an unmixed state, but, like the elements, always existed in combination. This admixture of elements and combination of qualities constituted, as we shall see, the characteristic temperament of each individual, caused the most minute molecule in the body to be distinct from all others, and imparted the property which belonged to it. Thus, one molecule was warm, while another was cold, dry or humid. Thus, also, were explained the binary qualities of warm dryness, of warm humidity, of cold dryness, of cold humidity.

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* Method. Medendi, lib. ix, c. viii.

Having thus disposed of the elementary qualities and accounted for the different temperaments, he admitted three great divisions in living bodies: *The parts, the humors, and the spirits.*

THE PARTS.—He applied this term to the solids only, and divided them into *similar* and *organic.* By similar parts, he understood those formed by simple and homogeneous molecules; indeed, the term bore much the same signification as the word "tissue" in our day. The organic parts were more complicated, and had nearly the same meaning as the word "organ" has with us.

THE HUMORS.—He admitted four: blood, phlegm, yellow and black bile. In each of these humors, one or two of the primitive qualities of the elements predominated. Thus, the blood was a warm and humid humor; phlegm, cold and humid; yellow bile, warm and dry; black bile, (termed also melancholia and atrabile) cold and dry. The blood was formed by aliments, was composed of the most simple elements, and nourished the body. The three other humors derived their origin from the blood, but they were to be considered excrementitious, because the superabundance or retention of their secretion disturbed the animal economy.

THE SPIRITS.—Galen divided them into three kinds—the natural, the vital and animal. They were the impelling principles of bodies, the forces by which their functions were performed; and though they differed from air, they were generated by it. The *natural spirits* were a subtle vapor, emanating from the blood and originating in the liver, which, after being carried into the heart, were changed by the air inhaled in the lungs into the second or *vital spirits,* and these were, again, transformed into the *animal spirits* in the brain.

Three different *functions,* which took their origin in the same organs where the spirits were formed, viz., in the liver, the heart, and the brain—corresponded with the three kinds of spirits. The liver was the organ that prepared blood, and it was the principal seat of the *natural function,* which presided over nutrition, muscular action and propagation; the heart was that of the *vital function,* for it distributed through the arteries the principles of heat and life, and was the source of anger and revenge; and the brain was that of the *animal function,* the most noble of all—for the intellectual powers and sensibility were derived from it, and, through the nerves, it distributed sensation and power of motion to all parts of the body, and it presided, also, over all the other functions.

Again, three kinds of *actions*—the *natural, vital and animal*—resulted from the activity of the corresponding functions. Each of these actions were again divided into internal and external. The internal actions of the natural function were sanguification, coction of aliments, and digestion. The external actions of the natural function consisted in the distribution of the venous blood through all parts of the body, for its nourishment, maintenance, or for the propagation of the race. The internal actions of the vital function were the passions, such as anger, hatred, love, etc.; the external consisted in the pulsations of the arteries and the distribution of the arterial blood through the system, where it sustained heat and life. The internal actions of the animal function were imagination, judgment and memory—the external were sensation and movement.

Besides these, Galen admitted other particular functions for each separate organ. Thus, it was the stomach that attracted, retained, concocted and expelled aliment. If the question was asked respecting the first cause of all this, with Hippocrates, Galen referred it to the innate power of nature, the supreme regulator and sovereign arbitrator of all our functions and actions, in health as well as in sickness.

Passing by other minute and subtle subdivisions, we now come to Galen's definition of health and disease. The first resulted from freedom from all pain, a perfect condition of all ths functions, implying a state of harmony and equilibrium between the elements, the elementary qualities, the humors, the spirits, and the similar and organic parts—a state given as the ideal type of temperaments, which though very rarely met with, served, however, as a basis from which other temperaments or conditions, approaching it more or less, were explained. In other words, between perfect health and disease, he established degrees, according to the various proportions in the admixture of the elementary qualities. Thus, he admitted four principal temperaments. which differed more or less from the model type: the sanguine, the phlegmatic, the bilious and the melancholic, according to the predominating elementary qualities of each, viz., heat, cold, dryness or humidity. An excess of heat constituted a warm temperament, an excess of moisture, a humid temperament, etc. He divided these so-called primitive temperaments into others more complex, resulting from the combination and preponderance of *two* elementary qualities. Thus, he had a warm and dry temperament; one warm and humid; another, cold and humid; and again, one cold and dry. He also taught that, besides these simple and complex temperaments, there were others of a sui generis character belonging to certain individuals—these he termed *idiosyncracies*. The differences of temperaments and their variations from the perfect or model type were not to be considered as a state of ill health, but mere gradations between health and sickness. It was not the simple divergence itself which constituted disease, but its existence to such a degree as to impede the healthy action of the parts. "Disease," says Galen, "is not a temperament, but an intemperament."

It was, therefore, the impediment in the action of the parts which constituted the morbid state, and all other conditions between the ideal temperament and this impediment were called *neutral*—a term the signification of which corresponds with our words "*predisposition*" or "*diathesis*."

According to these principles, he defined disease "a preternatural state of parts of the body, which primarily and of itself impeded their natural and proper action."*

He established three classes of diseases: the first, those of the similar parts, the second, those of the organic parts, and the third, those common to both. The first class, comprising affections of the similar parts, were divided into two species; the simple distemper which proceeded from an excess of one of the elementary qualities, whether heat, cold, dryness or moisture; the double or complex distemper, which resulted from an excess of two of these elementary qualities at the same time. The second class, comprehending affections of the organic parts, consisted in irregularities of conformation, number, size, situation, connexion, etc. The third class, which was common to similar and organic parts, included all the accidents resulting from solution of continuity. The two last belonged properly to surgery.

He divided the causes of diseases into *external and internal*. The external were six in number, and contributed to the preservation as well as to the derangement of health, according to the manner in which they were used. These were first, *air*; second, *food and drink*; third, *motion and rest*; fourth, *sleeping and waking*; fifth, *augmented, diminished and suppressed excretions*; and sixth, *the passions*. These he named procatarctical, or exciting causes, because it was through their agency that the internal causes were brought into action. The internal causes were divided into *antecedent* and *conjunct*. The most frequent of the internal causes were: first, plethora, or superabundance of the fluids; second, cacochymia, or putridity of the humors. Plethora could be caused by the too great abundance of the four humors at the same time, or by the superabundance of any particular one. Thus there could be as many kinds of plethora as there were humors–the sanguine, the bilious, phlegmatic and melancholic (or black bilious.) Putridity resulted from an altered state of the humors, as when they became unnaturally cold, warm, dry or humid, thereby rendering them more sweet, bitter, sour, salt, etc., than they should be. All *alterations* of humors were termed putridity. This took place when a humor in a state of stagnation was exposed to a high temperature without evaporating. Suppuration and even urinary sediments resulted from this cause. With the exception of ephemeral fever, which was symptomatic of some particular alteration in the pneuma, all fevers arose from putridity of the humors by developing a preternatural heat, which was communicated to the heart and arteries. Among the intermittents, the quotidian arose from corruption in the phlegm; the tertian, from putridity of the yellow bile; the quartan from a corresponding condition of the atrabile.

Inflammation was considered by Galen as proceeding from the presence of the blood in parts which naturally did not contain that fluid. Exposing the error of Erasistratus, who taught that inflammation could not possibly take place except by extravasation of the blood from the veins into the arteries (which, in their natural state, as was supposed, contained only pneuma,) Galen, maintained, on the contrary, that the arteries were blood vessels. We shall, hereafter, when treating of the theory of the physician of Pergamus on circulation, enter more fully on this interesting subject. When blood alone was thus introduced into the parts, the inflammation resulting therefrom was phlegmatous; when it was accompanied with pneuma, it was pneumatous; with phlegm, œdematous; with atrabile, scirrhous. It is on such and many other subtle speculations on the supposed humors that Galen founded the system which received the name of "humoral;" for though he admitted that diseases originated in the spirits and solids as well as in the humors, he attributed to the latter by far the greatest importance.

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* Broussais observes; "This definition resembles that of a solidist, but as soon as Galen commences to explain the mechanism of diseases, he shows himself a true humoralist. *Examen des doctrines*, vol. 1, p. 209.

Symptoms followed disease as shadows followed the body. They were divided into three classes: the first and principal of which consisted in impeded action of the parts; the second, in a change in their qualities, unattended by any disturbance of the action; and the last in defects of excretion and retention.

The signs furnished by disease were *diagnostic* and *prognostic*. The diagnostic signs were those which characterized the malady and distinguished it from others. The prognostic signs, by which an opinion was formed as to the probable duration, effects and termination of an affection, differed according to the parts affected, the temperament, the age of the patient, the season, the climate, etc. They were derived from three different sources: First, from the three classes of action—the vital, natural and animal; second, from the excretions; third, from changes in the qualities. They were also considered under three heads: first, respecting coction and crudity of the humors, second, the cure or death of the patient; third, the crises. By *coction* was meant the *maturation* or change which morbific matter experienced before elimination. By *crudity* was understood the condition of the morbific matter in the sick individual, when it had not yet been prepared or concocted by the action of the organs. With the exception of the indications he derived from the vital function, which he explained by the action of the pulse, he followed Hippocrates in his doctrines of coction, crudity, crises and critical days. Thus the majority of fevers terminated favorably on the seventh day and many on the fourteenth; these being the two most propitious days. Next, in order of efficacy were the 9th, 11th, 20th or 21st, 17th, 5th, 4th, 3d, 18th, 27th and 28th. Galen called the sixth day the *tyrant*, because the crises that occurred then were generally unfavorable. After this, the most unfavorable were the 8th, 10th, 12th, 16th and 19th. The 13th was neutral, viz., neither favorable nor unfavorable, etc.

Galen's fondness for fine-drawn distinctions was nowhere exhibited in a more marked manner than in his fanciful divisions of the pulse, which he considered of the greatest importance for the diagnosis and prognosis of disease. No less than seventeen separate treatises were devoted by him to this subject. "A whole life time," he says, "is not too much for the acquisition of the exact knowledge of the pulse. Even then perfection may not be attained, though by practice and close observation one can learn enough respecting it for great usefulness.*"

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* The following were the various pulses admitted by Galen:

1. *Long Pulse*, (Pulsus longus.) One which strikes the fingers to a great extent in length.—2. *Short Pulse*, (P. brevis.) When the artery strikes but one or two fingers.—3. *Large Pulse*, (P. crassus.) The artery dilates in its breadth.—4. *Narrow Pulse*, (P. strictus.) One which strikes the finger to a small extent in its breadth.—5. *High Pulse*, (P. elevatus.) The artery strikes sensibly and moves the arm.—6. *Low Pulse*, (P. debilis.) The pulsations are scarcely perceptible.—7. *Great Pulse*, (P. magnus.) The artery extends in length, breadth and elevation —8. *Small Pulse*, (P. parvus.) Pulsation hardly sensible in the length, breadth and elevation of the artery.—9. *Quick Pulse*, (P. rapidus.) One which strikes promptly and sharply, but not forcibly against the finger.—10. *Slow Pulse*, (P. tardus.) The pulsations are far apart.—11. *Frequent Pulse*, (P. frequens.) Which strikes very frequently in a given time.—12. *Rare Pulse*, (P. rarus.) Which strikes the finger slowly.—13. *Vehement* or *Strong Pulse*, (P. vehemens.) Strikes the finger with much force.—14. *Languid Pulse*, (P. languidus.) A slow and feeble pulse.—15. *Hard Pulse*, (P. durus.) That in which the pulp of the finger seems to yield to the pulsation.—16. *Soft Pulse*, (P. mollis.) One which yields under the finger.—17. *Full Pulse*, (P. plenus.) One which gives the notion of great repletion in the vessel.—18. *Empty Pulse*, (P. vacuus.) One which gives the idea of emptiness in the artery.—19. *Equal Pulse*, (P. equalis.) The pulsations resemble each other and return at equal intervals.—20. *Unequal Pulse*, (P. inæqualis.) The pulsations are not alike and return at unequal intervals.—21. *Pulsus Myurus*. One which goes on diminishing, and becomes smaller and smaller, like a rat's tail from *mus*, rat, and *oura*, a tail. 22. *Pulsus Myurus Deficiens*. One which seems every instant about to cease.—23. *Pulsus Myurus Reciprocus*. Which after having become gradually weaker, resumes by degrees its former character.—24. *Intermittent Pulse*, (P. intermittens.) The throbbing stops during one or two pulsations and recommences.—25. *Intercurrent Pulse*, (P. intercurrens.) One in which a superfluous pulsation seems to occur from time to time.—26. *Deficient Pulse*, (P. deficiens.) Seems to cease altogether.—27. *Jerking Pulse*, (P. caprisans.) One which seems to leap as it were.—28. *Rebounding Pulse*, (P. discrotus.) That in which the finger is struck twice at each pulsation. once strongly, the other time more lightly.—29. *Undulating Pulse*, (P. undulens.) One which resembles, in its movements, those of waves.—30. *Vermicular Pulse*, (P. vermicularis.) That which imitates the movements of a worm.—31. *Formicant Pulse*, (P. formicans.) One which resembles, by being small and scarcely perceptible, the motions of an ant.—32. *Tremulous Pulse*, (P. tremulus.) One in which each pulsation oscilates.—33. *Vibrating Pulse*, (P. vibrans.) One in which the artery seems to vibrate like a musical string.—34. *Convulsive Pulse*, (P. convulsivus.) That which is unequally frequent or unequally hard; in short, which resembles the irregular pulsations of a muscular fibre in a state of convulsion.—35. *Serrated Pulse*, (P. serratus.) The artery strikes the finger unequally, like a saw.—36 *Ardent Pulse*. (P. ardens.) One which seems to raise itself to a point, and strikes the finger quickly and strongly.

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BOOKS RECEIVED.

THE following works have been received, too late, however, for a special notice in this number. We shall refer to them in our next issue:—

A Report on Hospital Gangrene. Erysipelas and Pyæmia, as observed in the Department of the Ohio and the Cumberland, with cases appended. By M. Goldsmith, Surgeon U. S. V., Louisville, 1863. (From the Author).

Medical communications of the Massachusetts Medical Society, Vol. No. III, 1863.

American Medical Association.

AT the last annual meeting of the above Association, recently held in Chicago, the following gentlemen were appointed to constitute for the ensuing year, the Association's "Special Committee on Medical Topography and Epidemic Diseases:"

Drs. F. B. SHUFFORD, Holly Springs, Miss.
" THOS. M. LOGAN, Sacramento, Cal.
" C. W. PARSONS, Providence, R. I.
" I. G. CABELL, Richmond, Va.
" ALBERT SMITH, Peterborough, N. H.
" JAS. H. DICKSON, Wilmington, N. C.
" PETER C. GAILLARD, Charleston, S. C.
" THOS. O. EDWARDS, Chicago, Ill.
" JOSEPH PERKINS, Castleton, Vt.
" A. GARULOR, Lewiston, Maine.
" S. M. BERMISE, Louisville, Ky.
" D. W. BRICKELL, New Orleans, La.

Dr. LOGAN, having been officially notified of his appointment, solicits contributions on the medical topography and epidemic diseases from physicians from all parts of the State.

HEALTH OF SAN FRANCISCO.—There were 236 deaths during the month of October last, being 55 more than the number reported for the preceding month. This is the largest monthly mortality which has occurred since the commencement of our records (September, 1861). The greatest number hitherto reported was for August, 1862, when 222 deaths occurred. The total for October exceeds this by 14.

Of the 236 deaths reported for that month, 142 were recorded in the Lone Mountain Cemetery, of which 42 were under three years; 90 in the Roman Catholic burying ground, of which 37 were under three years; and 4 in the Jewish cemeteries.

The principal causes of death were recorded as follows: Consumption, 18; lung diseases, 7; brain diseases, 3; heart diseases, 7; liver disease, 1; dropsy, 3; enteritis, 2; dysentery, 7; paralysis, 2; typh fevers, 4; scarlet fever, 4; measles, 7; diphtheria, 3; croup, 1; whooping cough, 1; cholera infantum, 5; convulsions, 1; still-born, 7.

An epidemic of influenza, which has been seriously felt by persons of feeble constitutions, and especially by those laboring under chronic affections of the lungs, has been, and is still, prevailing generally throughout the State.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Anæsthetics in Midwifery.

IN the last number of our JOURNAL, we published an article from the pen of Dr. Robert Johns "On the Injurious Effects of Chloroform Inhalations during Labor." In connection with this subject, the following remarks of the editors of the *Chicago Medical Journal* are highly interesting:

FIBRINOUS COAGULA IN THE HEART.— There is a great deal of scattered experience with regard to this interesting subject which should be collected. Dr. J. F. Miner, editor of the *Buffalo Journal*, in an interesting article entitled, "Intra cardiac Blood Concretion," adduces two cases going to show the presence of these formations in death from chloroform. He makes these pertinent suggestions:

"It is perhaps an entirely new view of the dangers of chloroform to regard it as liable to produce death by inducing blood clot during the periods of suspended respiration which so often occur under its influence; still, in connection with hæmorrhage, which is supposed also to favor this formation, it may have more influence than generally supposed. Whatever interrupts the circulation, or greatly enfeebles it, must certainly be regarded as more or less operative in producing such result."

In which connection we beg leave to call Dr. Miner's attention to our own remarks, under this head, on page 332 (July No.) of this volume. Any notable reduction of the heart's action directly favors formation of these coagula, and their subsequent danger. The therapentic and prophylactic indications are obvious. Not only death but "complications," in the way of local disorders, are exceedingly liable to occur from the formation and detachment of these coagula into the current of the circulation, We repeat: "He who boasts that with Veratrum Viride, or Tartar Emetic, or other sedative, he has reduced the pulsation from a hundred, or more, below the normal standard, by no means convinces me that, unwittingly perhaps, he is not responsible for the sudden, or it may be slow and lingering, death which ensues." The attempt to control pulsation should, mainly, if not wholly, be through endeavor to remove the cause whatever that may be. The heart labors more rapidly in consequence of the demand made upon it, just as its muscularity increases when there is permanent obstruction. The hypertrophy is not disease—the more rapid stroke is not disease! This thing is worth looking after."

These remarks strike us as extremely judicious; and we repeat with the editors of that journal: "*This thing is worth looking after.*" However, we have witnessed too often the unmistakable benefits resulting from the administration of chloroform not to believe that the views of Dr. Johns respecting its mischievous effects are exaggerated, or to agree with him in so entirely discarding its use in obstetric cases.

Among the obstetricians who have written on this subject, none have shown more clearly or satisfactorily the value of this agent during labor than Dr. Fordyce Barker, the distinguished Professor of Midwifery in the New York Medical College. In order to bring the subject fully before our readers, we extract the following from a paper read by that gentleman before the New York Academy of Medicine, Nov. 20, 1861. (Transactions, vol. 2, part viii.)

After a few preliminary remarks, Dr. Barker says:

> In the minds of most medical men, the danger involved in the use of anæsthetic agents is the grand question above all others. And here permit me to say, that the danger from their use in midwifery is a question altogether distinct and apart from that of their use in surgery. There has not yet been reported, nor is there any reason for believing that a single death has ever occurred, in midwifery practice from the use of *any* anæsthetic agent, where it has been administered by a medical man; and without being able to give statistical evidence in proof of the assertion, I will express my firm conviction, that it has been administered a greater number of times in obstetric than in surgical practice. There are sound and patent physiological reasons why its use should be much less dangerous in the former than in the latter practice.
>
> 1st. The conditions under which they are administered are entirely different. In surgery the anæsthetic is used to give relief from an *anticipated* suffering. In obstetrics it is used to destroy pain already existing. There is no law better known in medicine than that the tolerance of narcotics and anodynes bears a certain relation to the intensity of the pain. One suffering from peritonitis or colic can safely and with advantage take a quantity of opium which would be sure to destroy the life of the same individual when in health. For this reason the risk from such an agent must be very much less in obstetrics than in surgery.
>
> 2d. The emotional condition of the subject under the two circumstances differs materially; in the one case tending to weaken nerve force and depress the vital powers, and in the other to secure tolerance of such an agent by stimulating and supporting the same elements. I do not stop here to discuss more fully the influence of the emotions as affecting the vital functions, although it is a subject of great importance, and one well worthy the careful study of every practical man. For my present purpose, I think that the mere statement of the proposition is sufficient to secure its acceptance by every mind. When a subject is about to submit to any painful operation, and an anæsthetic is proposed, there is always more or less dread and apprehension as to the result, to which is often added an anxiety with regard to the effect of the anæsthetic, whether it will really destroy all consciousness of pain; and if so, whether it will not also destroy life. But in midwifery, the overwhelming desire is to be relieved from the recurrence of the pains, and when the effect of the anæsthetic has once been experienced, it is again sought for with the greatest avidity and confidence.

3d. In midwifery, it is ordinarily unnecessary to carry the anæsthetic to the extent to which it is absolutely essential in surgery. In the former, it may frequently be carried to the extent of diminishing or destroying sensation, while consciousness is retained; or, if sleep is induced, it is tranquil, not stertorous. But in surgery, it is absolutely requisite that the patient be perfectly still; and the anæsthetic must be carried to the extent of complete sopor, the test of which is heavy snoring. Even if it be requisite to carry it to this extent in obstetrical practice, as it may be in some cases of natural labor, and ordinarily where operative measures, either manual or instrumental, are demanded, the two conditions which have been before mentioned as greatly modifying the danger from the anæsthetic, still remain. Futhermore, it may be added that the system is prepared by the previous use of the agent in a less degree, because there is now no emotional resistance to the effect of the anæsthetic.

For these reasons, as well as from clinical experience, I never feel the least anxiety in administering an anæsthetie in obstetric practice, while I cannot divest myself from more or less apprehension when asked to do this by my surgical friends, or by my patients when dental operations are to be performed. Hence I feel warranted in asserting that the question of anæsthetics in surgery is altogether distinct from anæsthetics in midwifery.

In this paper I propose to consider exclusively the latter subject. As regards the anæsthetic agent, my remarks will especially refer to chloroform, as this is the agent in which I have had by far the larger experience, and I very much prefer it to any other. My reasons for preferring chloroform to sulphuric ether are the following:

1st. Its oder is to most persons much more agreeable, and it is much less persistent. When sulphuric ether is used, it frequently at first produces more or less irritation of the bronchi, and an annoying cough or choking is excited. The effect of this is bad, both on the patient and the surrounding friends. It excites apprehension, which more or less tends to counteract the influence of the agent from emotional causes. In the lying-in room everything should be quiet and tranquil, and confidence should be inspired instead of anxiety. It is true, this influence is but temporary, but it is better to dispense with it, if possible. If sulphuric ether is used for any length of time, as is often necessary in obstetric practice, the room becomes filled with the disagreeable vapor the inflammable character of which is a consideration not altogether to be disregarded.

2d. A much less quantity of chloroform is required, and its effects are much more rapid. In midwifery this is a very great advantage, for we are saved in a great majority the preliminary stage of excitement which the ether produces, and we are able to use the agent for each recurring pain, the patient in the interval being comparatively free from the influence of the anæsthetic.—Thus, in the aggregate, not only is a much less quantity of the agent required, but the patient is exposed to the danger from the anæsthetic, if danger there be, for a much shorter period of time.

3d. By chloroform we are able to regulate the *degree* to which we may desire to carry anæsthesia with a certainty and security that is not possible with the ether. In surgery this argument can have no weight, because it is always necessary to induce complete anæsthesia; but in midwifery, as has already been stated, this is not desirable. On the contrary, it is generally to be avoided.

These reasons will be deemed by all sufficient for the preference, if it be conceded that the two agents are equally safe. Now as chloroform has been used in many thousand cases of midwifery practice, and there is an absence of all proof that in a single instance has death resulted from it, I think we have in the above reasons good *a priori* ground for believing that it is the more safe of the two agents. The above remarks will apply with equal force to chloric ether; for I presume no one will claim that chloroform diluted with alcohol must be more safe than chloroform diluted with atmospheric air.

In the following remarks, I shall aim to point out the indications for the use of anæsthetics in midwifery, and their effect and value in each special indication. The clinical experience on which they are based are 786 cases, occurring as follows:

In 1848	9	cases,	Sulph. Ether.
" 1849	62	"	" " 18, Chlo. 44.
" 1850	17	"	Chloroform.
" 1851	34	"	"
" 1852	37	"	"
" 1853	42	"	"
" 1854	56	"	"
" 1855	52	"	"
" 1856	74	"	"
" 1857	81	"	"
" 1858	84	"	"
" 1859	82	"	"
" 1860	84	"	"
" 1861	72	"	"
Total	786	Chlor., 759;	Sulph. Ether, 27.

Of these, 577 were cases of natural labor occurring in my private practice. The others will be classified under their appropriate heads, and were either cases of difficult labor in my private practice, or in my obstetric service at Bellevue Hospital, or were seen by me in consultation.

In a majority of these cases of natural labor, the chloroform was not carried to the extent of inducing profound anæsthesia. The chloroform was exhibited with the recurrence of pain in such a quantity as to destroy the sensation without overcoming consciousness. The length of time under which patients were kept under its influence varied from half an hour to, in one instance, over twenty-four hours. In most patients, the inhalations were not commenced until the second stage of labor; but where any special indications existed, it was given any time during the first stage.

The general physiological phenomena of anæsthesia in midwifery have been so fully and so accurately described by Professors Simpson, Murphy, and others, that I shall not detain the Academy with a recapitulation of them. The psychological phenomena have seemed to depend greatly on the antecedent condition of the patient's mind. If the chloroform was administered solely to relieve pain, and she had no apprehension in regard to danger from its use, consciousness was frequently retained, or a quiet and tranquil sleep filled up the intervals between each recurrence. But if she had been previously nervous, irritable, and hysterical, bearing her pains badly, or she had serious apprehensions as regards the effects of the chloroform, excited by accounts she had heard of its dangers, she may at first manifest great excitement by talking with great volubility, complaining loudly, and weeping hysterically; but by enforcing the strictest quietude in the room, forbidding all noise and conversation, and at once carrying the patient into the state of profound anæsthesia, this condition is soon overcome, and when once overcome, the degree to which the anæsthesia is carried may be speedily reduced. I may mention here that I never have, in a single instance in obstetric practice, witnessed the slightest erotic manifestation while a patient has been either partially or completely under the influence of an anæsthetic. I allude to this because it has been urged with great effect as an objection against its use.

The influence of chloroform on the duration of labor is a consideration of a good deal of importance. In a certain class of cases, I am convinced that its effect is undoubtedly to prolong the labor. These cases constitute a minority, and even in them, I have not been satisfied that this apparent objection was not more than counterbalanced by the advantages obtained from its use. In the first stage, I have seen but two cases in which it seemed to retard the process of dilatation. In both of these, I felt obliged to continue its use because, if the patient was allowed to come out from under the influence of the inhalation, threatening symptoms of convulsions would at once be developed. Yet for many hours the uterine contractions would seem to be arrested at once by the inhalation of the chloroform. In one the chloroform was used eleven hours during the first stage, and in the other twenty-three hours. The first was delivered by forceps at the end of two hours after the second stage commenced, because the symptoms of eclampsia became more and more marked. In the other, the labor terminated naturally, the second stage lasting five hours and a half. I remained with the patient three hours after the child was delivered. But two hours after I left her she had a violent attack of eclampsia. In the second stage the chloroform seems to retard the labor in a much larger number of cases. In this stage the uterine contractions are assisted by the action of the accessory muscles, which are partly voluntary, and partly involuntary. These accessory muscles are the abdominal and pelvic, which are brought into action by the pressure of the child upon the irritating structures of the pelvic cavity, which are abundantly supplied with spinal nerves, and thus active reflex action is excited. I am not absolutely certain but that in some instances the forceps have been made necessary from this cause; but I have never yet had reason to regret the use of the anæsthetic on this account.

But in a large majority of cases, my experience would lead me to the conviction that the use of chloroform shortens labor. I will mention in detail the conditions under which it apparently produces this result.

1st. In all those cases where inefficient uterine action results from loss of sleep, and exhaustion from a prolonged first stage. I have had this fact absolutely demonstrated as in the following case; as well as in many others less striking.

Nov. 6th. 1849.—CASE. The patient, a primipara, was in the first stage of labor eighteen hours. The second stage commenced with very active and efficient uterine contractions; but after a duration of six hours, they commenced to become irregular in their recurrence, and gradually decreased in their efficiency and force until they almost entirely ceased. The head was pressing the perineum without distending it. By auscultation, I found that the sounds of the fœtal heart were becoming more feeble, and increasing in frequency; and on account of the child I determined to deliver by the forceps. This was at an early date in the use of chloroform, and my patient had a great dread of losing her consciousness, but she had a still greater apprehension in regard to the use of instruments. As preparatory then to their use, she consented to inhale chloroform, and came rapidly under its influence when to my great surprise the uterine contractions were at once resumed with great force and efficiency, and the child was born in twenty minutes after she commenced the inhalation of the chloroform. It was at first asphixiated, but I succeeded in resuscitating it. Since that time, I have repeatedly seen the chloroform act quite as efficiently as an oxytoxic under analogous circumstances as I have seen the ergot. I have recently had a most instructive case, which has furnished a new illustration on this point.

CASE.—This patient was a primipara also, aged twenty-two, of great moral courage and self-control. She therefore did not send for me until after the first stage was entirely completed, when I learned that she had suffered from regular recurrent pains, sufficient to entirely prevent sleep for more than twenty-four hours. After ascertaining the presentation and position, I at once administered chloroform, for the purpose of relieving pain and inducing sleep. A very little sufficed for this purpose, and the labor progressed very slowly but steadily for three hours. After this time, the pains continued with apparently the same force, but the head did not advance. I continued the chloroform for two hours without any change, and then entirely ceased to give it for one hour—the only effect of which was to keep her awake and permit her to suffer, while the force of the uterine contractions did not increase. I then resumed the chloroform for three hours, the head still remaining in precisely the same position. I now determined to deliver by the forceps. Up to this time the chloroform had been used only to the extent of relieving pain and producing a tranquil sleep in the interval. As preparatory to the instrumental delivery, I now carried the chloroform to the extent of profound sopor; when at once most active uterine contractions supervened, and three pains were sufficient to complete the delivery of the head. I might multiply my illustrations of this effect by the history of similar but less striking cases, but the above are sufficient to establish the point which I here wish to make.

2d. the rigidity of the os uteri and perineum.

In regard to these two points, we find quite a diversity of opinion on the part of obstetricians who are in the habit of using chloroform in midwifery; some asserting that it has a direct influence in effecting relaxation of these tissues, while others affirm that they have not been able to discover that it exerts any influence in that respect. The first condition causes delay in the first stage of labor, and the second delay in the second. I believe the fact to be that chloroform exerts a most decided influence in overcoming this obstacle in one class of cases, while it produces no effect on the other. Rigidity of the os results from two entirely different conditions, one of which is speedily relieved by the action of chloroform, while I am not certain that it exerts any special influence on the other. In the one case, it is due to reflex irritation producing spasmodic contraction, which readily gives way when the patient is brought under the influence of the anæsthetic. In the other, it is the result of an antecedent inflammation, with an exudative deposit in the areola tissue, which only yields by a laceration, or what is very much better, an operative procedure, incision.

In those cases where it is the internal orifice which, by its retraction, retards the delivery, the chloroform almost invariably obviates the necessity of the forceps. I think this fact is quite sufficient to counterbalance the objection before alluded to, that it may in some rare cases create the necessity for these instruments.

But this point becomes still more manifest when we refer to resistance of the perineum as a cause of retarded labor. No one condition, especially in primiparæ, is so frequent a cause for the necessity of resorting to the forceps. This, like rigidity of the os, results from two quite different conditions. One where it depends upon an excessive contraction of the muscular fibres that enter into its composition. This obstacle the chloroform invariably overcomes. In the other case, it is due to the presence of so great a quantity of adipose tissue as to render this position of the pelvic wall too inextensible to permit the escape of the head. Here the chloroform will have no direct influence in accelerating the progress of the labor.

3d. The chloroform shortens the duration of a labor in all that class where the pains are diminished or suspended by vivid moral impressions or hysteria; or by pains resulting from the coincidence of some malady, either existing antecedent to or appearing during labor; such as rheumatism of the uterus or other muscular tissues, or sharp pains in the back or abdomen, gripings in the intestines, and the cramps which are occasionally produced by the pressure of the child's head on the sacral nerves. It is unnecessary for me to enlarge upon this point, as the reasons why the chloroform should in all such cases accelerate labor will be sufficiently obvious.

On the whole, then, I am obliged to state my conviction that chloroform accelerates labor in a greater number of cases than it retards it.

I have formerly been in the habit of teaching that chloroform should not be used in face and breech presentations, unless there were some special indications for resorting to it, on account of danger to the mother; as the safety of the child turns in a great measure, in these cases, on the shortness of the second stage of labor. I have now somewhat modified my opinion in this respect, and inculcate the principle that it should be used in those cases unless there are special indications to the contrary; for the patient is much better prepared for operative procedures, should they be required in order to hasten delivery to save the child. The indication to the contrary will be inferred from what has been said before, viz. where the assistance of the accessory muscles of parturition is arrested by the action of the anæsthetic.

The value of anæsthetic aid in operative midwifery, both manual and instrumental, is much more generally conceded, than in cases of natural labor. Still, it will be found that there is here a great diversity of opinion among obstetricians.

Forceps Cases.—Nearly all who have had a large experience in the use of chloroform in midwifery agree as to the propriety and value of this aid where delivery by forceps is necessary. There are some, however, who do not deem it necessary either to facilitate the operation or to allay pain. Others again do not resort to the anæsthetic until the blades have been applied. In private practice, in consultation cases, and in the obstetric service of Bellevue Hospital, I have applied the forceps in one hundred agd thirty-two cases, where the patient has been under the influence of chloroform. In only one case, since 1848, have I delivered by the forceps without this aid, and in this instance the patient was comatose from an attack of eclampsia. The operation is accomplished with much greater ease to the accoucheur, and safety to the patient, if properly performed. If all due precautions are taken in introducing and locking the blades, the danger of injury to mother and child is greatly decreased, because the perfect quietude and tranquillity of the patient is secured, and the operation can be performed with the greatest deliberation and carefulness, which is often impossible when the patient is under great excitement. Especially is this the case with regard to the safety of the perineum.

Version.—My experience is limited to twenty three cases. The advantage of chloroform in such cases may be thus succinctly stated. There is much less resistance to the introduction of the hand; as it is introduced without pain to the patient, it rarely requires to be withdrawn and reintroduced on account of the paralysing effect of the uterine contraction, the external and internal manipulations are much more safely and expeditiously accomplished and there is less danger of injury to the internal surface of the uterus.

Craniotomy.—I have performed this operation but five times in the last twelve years. Three of these were hospital cases, and two were cases that I saw in consultation with other medical gentlemen. The advantages of anæsthetic aid in such cases are too obvious to require renumeration. I certainly never would perform the operation without it, and regard it as horrible with it.

Cæsarean Operation.—I have performed this operation once, and from my experience in this case and a careful study of all the reported cases accessible to me, I have arrived at the firm conviction, that, by means of anæsthesia, the mortality from this operation, when necessary, will be greatly diminished, and that it will eventually be more frequently performed than craniotomy, thus saving the life of the child, and affording a greater chance for the life of the mother. To give all my reasons for this opinion would involve a full discussion of the entire subject, which is not pertinent to the subject of this paper.

Removal of Adherent Placenta.—I have been called upon to perform this operation but twice since I have been accustomed to rely upon the aid of an anæsthetic. Its value in these cases is beyond all controversy, and I shal therefore not stop to dwell on this point.

It remains for me to speak of chloroform in the various diseases and accidents which complicate labor. In a former paper which I had the honor to read before this body, by appointment of the Obstetric Section, which has been published in the Transactions of the Academy, I have expressed my views as regards the therapeutic indications for, and the value of chloroform in the treatment of *puerperal convulsions*. As a more enlarged experience has only served to confirm these views, and has in no degree served to modify them, I will not subject the Academy to the tedium of hearing them repeated. I may simply say that I believe these views are now generally accepted.

In the management of *placenta previa* I have never had occasion to use chloroform. In the cases which I have seen, I did not regard it as judicious or justifiable; but I can readily conceive of cases where it would probably be of the greatest service. For example, if the patient was seen early, before any great shock was produced by a great loss of blood, and the os uteri was dilatable, the indication would be to turn and deliver at once, and here the chloroform would be invaluable.

Laceration of the Perineum.—It is stated by Dr. Tyler Smith that he "has met with bad cases of the rupture of the perineum" under the use of chloroform. "The patients were relieved from pain, but volition was not suspended, and under these circumstances, the violent and fearless straining efforts plowed up the perineum by the fœtal head in the expulsive pains." All reasoning on the subject would lead to the anticipation that the danger of rupture of the perineum would be greatly diminished by the use of an anæsthetic, but other writers have made statements similar to that of Dr. Smith. None however, so far as my knowledge extends, have detailed the phenomena of a series of cases or even of one case, so as to enable us to judge whether the anæsthetic was a mere coincident or bore the relation of cause and effect. My own experience would lead to a contrary result, for to the best of my knowledge, anything like a considerable laceration of the perineum has occurred but twice, in all the cases in which I have administered chloroform, one of which would seem to confirm to a certain extent the views of Dr. Smith. The patient was well under the influence of chloroform, and fifteen minutes before the delivery of the head, I had made a careful vaginal examination, and found it still high up in the cavity. I was greatly astonished at the rapid delivery, and no little disgusted to find a fearful laceration of the perineum. Very good union, however took place without operation. She has been confined twice since this labor, and in both instances the second stage has been unusually long. The other case occured recently at Bellevue Hospital. The patient was a primipara, thirty-two years of age, and was delivered by me with the forceps. In this case by careful measurement, it was found that the occipito-mental diameter of the fœtal head was six and five-eights inches, one and one-eighthenth inch beyond the ordinary normal measurement. I may be pardoned for mentioning one extraordinary incident connected with this case—the patient came near dying from hemorrhage, not from the uterus but from the lacerated vessels of the perineum. Both mother and child have, however, since done well.

Post Partum Hemorrhage.—It is stated by several authors that the liabiliiy to this accident is manifestly increased by the use of an anæsthetic in labor; yet here, as in the preceding accident, there is an entire absence of anything like statistical evidence that this is the fact. In my own private practice I have not met with a single instance of this occurrence, but I have seen quite a number of cases where this has occurred, in the practice of others, and where no chloroform has been used. I do not ascribe the exemption which I have had entirely to the use of chloroform, although I do regard it as having exerted a manifest influence in this regard. The great security against post partum hemorrhage lies in the efficiency and permanent contraction of the uterus after delivery. What is termed uterine inertia, is often but another name for uterine exhaustion, and this must certainly be much less likely to occur where the nerve force and vital powers have been saved by the use of an æsthetic. It seems to be believed by some that the effect of anæsthetics is to depress the vital powers, and if this were true, post partum hemorrhage would inevitably occur more frequently after their use. A Committee of the Boston Society for Medical Improvement have just made a Report on the alleged dangers which accompany the inhalation of the vapor of sulphuric ether. The Report is one of great value and interest, although none of its statistics and little of its reasoning will apply to the subject of this paper. In summing up their general conclusions, the first statement of the Committee is, "The ultimate effects of all anæsthetics show that they are depressing agents. This is indicated both by their symptoms and by the results of experiments," &c. It seems to me that this statement needs to be greatly modified, in order to express a scientific truth. Under certain circumstances and conditions, anæsthetics are in no sense depressing agents, but their effects are quite the contrary. I will illustrate the truth of this assertion by two striking examples. In 1853, I administered chloroform in Brooklyn, to a patient of Prof. Carnochan, on whom he performed the operation of tying the external iliac, on account of an aneurism which extended from the origin of the femora profunda upwards, below Poupart's ligament, as far as the middle of the external iliac artery. Previous to the administration of the chloroform, the patient was in an extremely prostrate condition, probably due principally to emotional causes. The lips were pallid, the surface was cold, and the pulse very rapid, thread-like, and feeble, and I was exceedingly apprehensive as to the effects of the anæsthetic. But after the inhalation, the surface became warm, the pulse full and equable; and during the whole operation its frequency was not eighty-four beats in a minute.

In 1858, a patient was brought into Bellevue Hospital, who had suffered from a severe burn of the leg, the whole tissue of the lower part of the leg being destroyed, and the knee joint entirely denuded of all flesh. It happened to be just the hour of my clinic, and Prof. J. R. Wood, who had decided to amputate immediatly, requested me to administer sulphuric ether. For reasons which I then assigned, I declined to administer ether, but I proposed chloroform, to which Dr. Wood assented. The patient was at this time suffering fearfully from the shock. Hardly any pulse could be perceived at the wrist, the surface was cold, and he was violently delirious. Dr. Wood amputated before a large number of students and medical men. As soon as the patient came under the influence of the chloroform, reaction came on, heat of surface returned, the pulse became natural as to its force and fullness, the patient was perfectly quiet, with a smile on his face, and remained so the whole time that he was under the influence of the anæsthetic. Now such facts as these, although perhaps not so striking, are familiar to every one who has had much experience in anæsthetics, and I think they conclusively show that the statement of the Boston Committee should be essentially qualified.

Effects of Anæsthetics on Puerperal Convalescence.—It is very generally asserted that convalescence is much more rapid where anæsthetic has been used during labor, but the physiological changes implied in the term puerperal convalescence, such as the involution of the uterus, and the restoration to their normal state of the other parts involved in the process of parturition, can in no possible degree be accelerated by the use of chloroform.

But as a rule, the general condition of the patient for the first few days immediately succeeding labor, is beyond all doubt much better where the anæsthetic is used than where it is not. I have never had a patient suffer from headache, delirium, vomiting, and the various other unpleasant sequelæ which have been ascribed to this agent. This may be partly due to the article which I have used. With very few exceptions, I have only used Duncan and Flockhart's or Squibb's chloroform.

In conclusion, I submit the following propositions as a basis for the discussion of the Academy:

1st. Anæsthetic aid is of the greatest value in the obstetric art, and chloroform is generally the preferable agent for this purpose.

2d. It exerts no injurious effects, when properly administered, upon the health of either the mother or the child.

3d. It is perfectly justifiable to use chloroform in natural labor, solely for the purpose of relieving pain.

4th. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

5th. It should be administered in those cases of natural labor, where the progress is suspended or much retarded by the pain occasioned by previous diseases, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain but have no effect to advance the labor.

6th. It is of great service in spasmodic contraction and rigidity of the cervix uteri, in tetanic rigidity of the perineum, in certain forms of puerperal convulsions, and in the various obstetrical operations.

* * *

Dietetic Treatment of Albuminuria.—The researches of M. Hamon contained in a note on albuminogenesis communicated to the Académie de Médecine on the 29th April, 1862, appear to throw considerable light upon the question whether any kinds of aliment increase or diminish albuminuria. He found for instance, that soft-boiled eggs were very easy of digestion, and exercised a very slight albuminogenic influence, and it has therefore been suggested that in albuminuria an albuminous diet might be ordered, composed principally of soft boiled eggs and albuminous water. Vegetable diet has also been sometimes employed in albuminous anasarca, sometimes with perfect success. But all kinds of diet that have been adopted in albuminuria are inferior to that of milk, as recommended by M. Guignier. The latter physician adopts the treatment of albuminuria devised by M. Serres, and which is founded on the combination of three plans—namely, the diminution of drink, the milk regimen, and the use of raw onions. The plan consists in choosing the milk with great care as to its freshness and quality, in substituting one milk for another when the first disagrees with the patient, allowing the patients to determine the quantity they drink, uniting lime or magnesia with the milk when it causes acidity, and abandoning the treatment at the end of twenty days, if it has not produced a decided good effect. M. Guignier believes that the diuretic property of the raw onion has a beneficial effect upon the disease, and that these vegetables ought to form part of the milk regimen. The editor of the *Bulletin General de Therapeutique* thinks that albuminuria may be cured by dietetic means, if they are adopted early, when the effusions are recent, and before the albuminuria has lasted long enough to have produced in the renal tissues the organic changes which place the case beyond the hope of cure.—*Brit. and For. Med. Chir. Rev.*, July, 1863, from *Bull. Gen. de Therap.*, March 15, 1863.—*American Journal of Medical Sciences.*

ORIGINAL PAPERS.

Data for Calculating the Lapse of Time since the Death of an Individual.

BY THOS. M. LOGAN, M. D. OF SACRAMENTO.

Nowhere is there an ampler scope—a larger field for the prosecution of Forensic medicine than in California, whether we consider the various races and phases of society, or the enormity of the crimes resulting from the prevailing money-getting mania here met with. Questions are not infrequently sprung, showing the incertitude of this department of our science, and the insufficiency of the cognate works on medical jurisprudence in affording precedents for the guidance of Jurists and Experts. An instance in point has just called our attention to the subject, and which we proceed to place on permanent record with the hope of eliciting further contributions from the profession.

In the case of the "People versus Samuel Carkhuff," for the murder of his uncle, the evidence showed that the latter was last seen alive on Saturday afternoon, (December 28th, 1862,) at about two o'clock. The body was discovered at half past seven on the following Monday morning, by two witnesses, who deposed as to its condition. King testified that he found the body cold; that there was a little warmth in the region of the heart, and that the limbs were rigid. Cross-examined: he first felt the feet, which were cold, and afterwards felt the breast, which he could not say was clay-cold.

Buttrick testified that the body was cold, although it might not have been "stone-cold" in the region of the heart.

The defendant proved himself to have been in the city of Sacramento, 4 miles from the homicide, at 11 o'clock Sunday night, and that he had retired to bed, where he remained until 4 o'clock Monday morning. He also produced testimony that tended to show that he was in the city at 9½ P. M., Sunday.

On these premises, together with the state of the weather, hereinafter mentioned, at the time the murder was committed, furnished from my meteorological register, a theory of defense was framed by the counsel of the accused, which will be developed in the following abstracts furnished by a stenographer.

DR. T. M. LOGAN,—Sworn.

Mr. Hereford, attorney for the defense.

Question. "You did not know the deceased, Mr. Carkhuff?"

Answer. "I did not."

Question. "I will instance then the case of the deceased—a man from 40 to 45 years of age—a lean man—weighing from 125 to 130 pounds—rather delicate in health—with the weather at the temperature and the condition you have stated as then existing—if, at that time, the deceased was found with his throat cut—a mortal wound over or behind the right eye, occasioned by a blow from some blunt instrument—another mortal wound of a similar character over the ear—if, I say, such a man, in this condition, should be found dead at from 7½ to 8 o'clock on the morning of the 29th, in a house, with the floor not tongued and grooved, but with open spaces sufficient to admit currents of air, when would you say that man's throat had been cut?"

Answer. "I will reply to the question in accordance with the generally recognized principles of medical jurisprudence. Under ordinary circumstances a body cools in from 8 to 12 hours after positive death occurs. Under the circumstances you have mentioned, this body should have cooled in the shortest time—that is 8 hours. Some bodies take a longer, some a shorter time to cool. For example, a body in which there has been compression of the brain takes a longer time:—a body of a man who has been killed by opening a large artery cools in a shorter time. Under the conditions you have described I would say that this body should have cooled in at least 8 hours, if not sooner."

Question. "You said that a body, under the circumstances described, should have cooled in the least possible time. What is the least possible time?"

Answer. "About 8 hours, according to established medical rules."

Mr. Upton, for the prosecution.

Question, "Is there any criterion within your knowledge by which you could tell how much the fact of the body having upon it shirt, under-shirt and drawers, would have the effect to retain the heat?"

Answer. "None that could be relied upon by itself."

Question. "That would be a question involving other considerations; each case depending on its own circumstances. Is it not so?"

Answer. "Certainly so."

DR. J. F. MORSE,—Sworn.

Mr. Upton, for the prosecution.

Question. "From such an examination as has been spoken of in this matter, can it be told definitely, how long the body had been dead?"

Answer. "It can be told by the *rigor mortis*, or cadaveric rigidity."

Question. "Can it be told positively, accurately, from the data which have been given?"

Answer. "No, not accurately—that is not absolutely what I mean."

Question. "In defining the limits within ten hours, can it be fixed with certainty?"

Answer. "Only by the general rules spoken of."

DR. H. W. HARKNESS,—Sworn.

Mr. Upton, for the prosecution.

Question. "I wish to inquire of you if there is anything in your profession, scientific works, bearing upon medical subjects, which will enable a physician to tell, definitely, by the appearance of a body, how long it has been dead?"

Answer. "There is not. We have no medical works that will enable us to tell the time, with certainty, by the appearance of the body, that has elapsed since death; at least, none that I know of."

On these facts a very plausible argument was based, by the defense, showing that the accused could not have committed the murder, inasmuch as there was some warmth in the body, when first discovered, nine or ten hours after it was proven the defendant had left the premises. The jury failed to agree at the first trial, which was held in Sacramento on the 24th of Feb'y., 1863. A change of *venue* was obtained, and a second trial was held at Auburn, Placer county, on the 4th of November, 1863. No other medical testifior was summoned but myself, at this second trial, and by the courtesy of the defendant's attorneys, Messrs. Tuttle and Fellows, and the consent of the prosecution, I was excused from going to Auburn, on condition that I would write my testimony in a manner that would be satisfactory to all parties—so as to cover all the points at issue.

Written testimony of DR. LOGAN.

"1st. I saw the deceased, accidentally, for a few moments, laid out in his coffin at the undertakers. He appeared to be a thin, spare, man, and presented the appearance of one whose blood had all been drained from his body. His throat was cut from ear to ear, down to the vertebræ of the neck. There was also a depression, apparently from fracture, on the side of his head, at the external angular process of the frontal bone. Either of the two injuries were sufficient to cause death. *The latter might have been inflicted first, and his throat cut afterwards, while the deceased was in a comatose state.*

2d. Death of the body, (somatic death,) may take place in a few seconds from a quantity of blood lost suddenly, as from the wound of a large artery like the carotid; death of portions of the body, (organic or molecular death,) may be postponed a longer or shorter time according as the condition of the fluids and solids of the body may have been impaired by the mode of death. Thus, in Necræmia, (death of the blood,) Asthenia, (debility,) and death by a gradual cooling, molecular and somatic death may be said to be instantaneous. But in many cases of death, by causes which operate by producing a more gradual syncope or asphyxia, the tissues and blood having been previously in a healthy condition, we are not quite certain that molecular death has supervened until signs of actual decomposition present themselves.

3d. Decomposition follows immediately upon the subsidence of the Rigor mortis or Cadaveric stiffness. This rigidity never comes on until molecular death is established. The supervention of rigidity is not usually prolonged much beyond seven hours, but 20 or 30 hours may elapse before it shows itself. Its general duration is from 24 to 36 hours; it may continue as long as nine days. It may be regarded as the final manifestation of the tonicity of the muscles. Animal life terminates before organic life. Molecular heat and cadaveric rigidity are the results rather of physical or chemical, than vital actions. After those forms of death in which the blood does not coagulate or coagulates feebly, as in death by lightning, or by suffocation, the rigidity commonly manifests itself least. Coagulation of the blood begins about 4 hours after death, and it seems probable that as the coagulation of the blood is the last act of its vitality, so the stiffening of the muscles is the expiring effort of theirs.

4th. The animal heat possessed at the moment of death is retained for some time, as the skin and subcutaneous tissues are bad conductors. Fat seems to be a peculiarly bad conductor, and very fat bodies retain their heat, *celeris paribus*, much longer than very lean ones. Other circumstances also exert an influence on this general cooling, particularly the medium in which the body lies, and the nature of the death. On this latter point I have already stated some facts in the preceeding paragraph, (No. 3). With regard to the former, it is well known that in cess-pools, dung-heaps, and the like, bodies retain their heat proportionately longer than in water or in moist cool air, from manifest causes; and the same is the case with bodies remaining covered in bed.

The following shows the condition of the atmosphere about the time of the death of the deceased:—

Copy from my Meteorological Register.

1862. Dec'br. 28th, 9 P. M., Thermometer, dry bulb, 43°–wet bulb, 38°. Wind N. W., fresh breeze and clear.

1862. Dec'br. 29th, 7 A. M., Thermometer, dry bulb, 35°–wet bulb, 33°, Wind S. E., light breeze and fog.

These meteorlogical conditions are highly favorable for the rapid conduction of heat, and a body, lean and spare, with all the blood draining from it, and lying uncovered on an open bare-floor, should cool in the shortest possible space of time. As a general rule, states Casper, of Berlin, most bodies are quite cold in from 8 to 12 hours. I know of no authority on forensic medicine by which we are enabled to tell, by the appearance of the body, with any absolute certainty, the time that has elapsed since death occurred. Carpenter says that the supervention of rigidity is not usually prolonged beyond 7 hours; which leads to the inference that a body may become entirely cool in a shorter time—inasmuch as rigidity does not appear until molecular death is established, or, in other words, until the body is entirely cold. As it is an established fact that the extremities of a body cool or equalize themselves much sooner with the surrounding medium than the central or more vital parts, so *it is highly probable, indeed, self evident, that to a person touching the feet of a dead body—absolutely dead—before touching the heart, the latter would appear more or less warm, even for some time after the period of cooling, above stated, had passed away.*

It is necessary to add that the opinions embraced in this testimony have been compiled from the highest authorities in the science of medicine, to meet the questions propounded."

The prosecuting attorney, who was taken somewhat by surprise by the theory developed at the first trial, being now prepared and posted at all points, it was soon seen that the medico-legal testimony could not be relied upon for the defence. The italicized portion of the first and last paragraphs of the above written testimony bore with peculiar force against the hypothesis framed for the defence; for there was nothing to show why, even if it was admitted that molecular death had not taken place, the defendant could not have perpetrated the act of cutting his uncle's throat between four and five o'clock on Monday morning, many hours after he had perpetrated the first stunning blow, which fractured the skull of the victim. That, however, molecular death had been established, there was a strong probability, inasmuch as the comparative difference of temperature between the feet, which are the first to cool, and the region of the heart, which is the last to cool, doubtless produced the impression on the minds of the witnesses above cited that the body was still warm. The jury, it seems had now no difficulty in the prompt rendition of a verdict of murder in the first degree, and thus has truth been eliminated by the science of law, and retributive justice overtaken the guilty. Nevertheless, it must be confessed that the subject involves many obscure points, which it is due to justice and the honor of our humane profession, should be made clear. It is made manifest that the data which we now possess for calculating the time which has elapsed since the death of an individual are altogether too vague and inconclusive. Dr. Adolf Kussmaul, Lecturer on State Medicine at Heidelburg, while stating that cadaveric rigidity may be useful in some cases in determining the priority of death, admits that our knowledge is insufficient to afford more than approximate results. Sommer, too, has shown that the law of Nysten, which sets forth that the *intensity and duration of cadaveric rigidity is always in direct proportion to the strength and integrity of the muscles of the body;* and from which follow as corollaries, that, *ceteris paribus,* rigidity is weaker in children than in adults, and sets in earlier in the former than in the latter, is not borne out by an examination of Albers Tables, and while he denies that the time of its occurrence is in a constant manner dependent on the influence of the duration of the act of dying and the nature of the disease, he shows that rigidity usually sets in in the human subject, not only before cooling, but that it may be developed prior to the sinking of the natural warmth, and even while a morbidly elevated temperature of the body exists. Besides, it is well known that numerous chemical agents possess the power of instantaneously producing rigidity of the muscular structure, or of greatly hastening the supervention of this state. The experiments of Brown-Sequard also prove that an electric current has the effect of hastening the occurrence both of rigidity and of putrefaction. Taking all these circumstances into consideration, it appears to us to be very problematical whether the period at which rigidity supervenes or goes off shall ever justify conclusions as to the time which has elapsed since the death of an individual.

December, 1863.

Tetanus.

BY H. H. TOLAND, M. D.

M. **Haley**, aged 35 years, was wounded Oct. 1st, 1863, with broken glass, on the radial side of the left arm, two inches above the wrist joint. The wound, although not extensive, being neglected for several days, became very painful, but improved rapidly under proper treatment, and was completely cicatrized in twenty days. Fifteen days after the receipt of the injury, he began to suffer from pain and stiffness of the muscles of the lower part of the face, accompanied with difficulty of deglutition, and when my attention was directed especially to the case, he had all the symptoms of tetanus, and they were so violent that he was unable either to sleep or to remain in a recumbent position.

On the twenty-first day after the injury the paroxysms returned every five minutes; he was unable to take any nourishment, and without speedy relief the disease must soon terminate fatally.

The remedies prescribed having failed even to palliate the symptoms, I determined to sever the connection between the wounded nerve and brain, by making a transverse incision an inch above the cicatrix, extending to the bone, so that the injured nerve must certainly be divided. To the wound resulting from this operation, one gr. morph. sulphas was applied daily; the edges were separated by the introduction of wet lint, and the water dressing employed. Internally he took thirty drops tinct. cannabis indica every two hours, until the disease was entirely controlled. The spasms, from the time the operation was completed, became not only less frequent, but also diminished rapidly in violence, and by the twelfth day they only recurred when the wound was dressed.

Being greatly exhausted, both by protracted suffering and want of nourishment, so soon as both the local and constitutional remedies were discontinued, porter and a generous diet were substituted, and his recovery was rapid and satisfactory.

CASE II.

Wm. Cloonan, aged 15 years, had only resided a few months in San Francisco, when he struck the extremity of the small toe of the left foot against a sheath-knife that was standing perpendicularly with the point sticking in the floor of his room, and received a wound about half an inch in depth upon the upper surface, dividing the nail in the centre. Twenty days after the occurrence of the accident, the wound being healed, he came to my office with, as he supposed, an ulceration of the tongue—producing a stiffness of the neck and lower part of the face, and causing great pain on deglutition.

When directed to take a seat in order to have his tongue examined, I found that his lower extremities could not be flexed sufficiently to enable him to sit on an ordinary chair, and the effort was accompanied with a violent tetanic spasm.

Upon inquiry, I ascertained the history of his case, and determined to amputate the toe, believing that to be the only treatment that could afford relief, the spasms being so violent that his tongue was severely contused by his teeth at each recurrence.

At eight o'clock the same evening the operation was performed, and one teaspoonful of McMunn's Elixir Opii was given every two hours until considerably relieved. The quantity was then diminished to thirty drops and continued constantly both day and night until the symptoms disappeared.

He is now well, not having experienced any symptoms of the disease for fifteen days.

These cases of traumatic tetanus are published, as every successful case of this formidable disease should be, because they demonstrate the efficacy of the course of treatment adopted of severing the communication between the wounded branch and nervous centre, without which the remedies prescribed must have failed, as is too frequently the case with every course of treatment in this fatal disease.

PHYSIOLOGICAL AND PATHOLOGICAL PUS.—M. Jules Guerin (*Gaz. Med.*) thus sums up the doctrine he has been so long working at: "There is a fundamental difference between pus secreted by wounds and pus furnished in different morbid collections. In the former case it is modified blood; the return of this fluid and the elements which compose it to their normal condition, it is *physiological* pus. In the latter it is a contaminated fluid, changed by the morbid elements of which it is the vehicle—it is *pathological* pus. Physiological pus possesses, like the blood, a kind of vitality, while pathological pus is a dead, excrementitous product, susceptible in the highest degree of undergoing putrefaction. This great and important difference is especially appreciable with respect to traumatic abscesses and cold abscesses, constituting collections. The former require to be opened as soon as possible, and such opening ordinarily leads to no inconvenience; while the latter, on the contrary, are innocent only as long as they are sheltered from the air, their opening almost constantly giving rise to putrefaction of the pus, and exposing to the danger of purulent intoxication. The differences are therefore not merely nominal. Numerous investigations have shown that the decomposition of the pus is especially due to oxygen, hydrogen, and nitrogen, carbonic acid taking little part in this. Putrefaction, properly so called, results from the presence in the air or in the pus itself of dead organic elements acting as ferments." These different considerations led the author to establish his *subcutaneous method* of treatment, or treatment by *occlusion*." —*Medical Times and Gazette.*

Report of the U. S. Marine Hospital, San Francisco, for 1862.

BY JOHN HASTINGS, M. D.

Disease.	No.	Dis'd.	Died.
Syphilis—*Primary*—with occasional phagedena&sphacelus of the penis—*Secondary*, with sloughing of the fauces& groins; Iritis; several severe case of lepra; rupia, condylomata &tubercular eruptions - *Tertiary*,— including Necrosis of theBones of the Head, Face, Throat & Extremities,with occasionally Deafness	220	218	2
Phthisis-Pulmonalis	19	4	13
Scrofula	10	10	
Necrosis of Bones	8	8	
Ulcers— Chronic and Acute	40	40	
Lupus	3	3	
Acute and Chronic Rheumatism	122	122	
ArticularRheumatism	23	23	
Fevers—Intermitting	64	64	
Remitting	15	15	
Typhoid–Remitting	11	10	1
Pneumonia, Acute	9	9	
Pleuritis	3	3	
Hemophysis	1	1	
Asthma	1	1	
Bronchitis, Acute	25	25	
Inflam. of Bowels	21	18	3
Diarrhœa, Chronic & Acute	12	12	
Asiatic Cholera	3	2	1
Cholera Morbus	1	1	
Affections of theHeart and Aneurism of the Aorta & Innominata	21	14	7
Chronic Affections of the Brain, Softening, etc.	11	6	5
Apoplexy	3	3	
Dementia	3	3	
Mania-a-potu	15	15	
Paraplegia and Hemiplegia	12	12	

Disease.	No.	D's'd.	Died
Chronic Hepatitis, with Ascitis	5	5	
Diabetes	1	0	1
Acute Gastritis	3	3	
Empyema	1	1	
ObstinateConstipation of the Bowels	2	2	
Ozæna	1	1	
Tænia	3	3	
Neuralgia of theHead	4	4	
Acute Inflammation of the Throat & Fauces	5	5	
Tumors—Non-Malignant	7	7	
Small-pox	3	3	
Measles	4	4	
Urticaria	2	2	
Stricture of the Urethra	9	9	
Urethritis, Catarrhal-	10	10	
Gonorrhœa, Phymosis and Paraphymosis	83	83	
Hypospadius, with Gonorrhœa	2	2	
Orchitis and Hydrocele	20	20	
Acute Cystitis	5	5	
Wounds & Catarrhal Affections of the Eye,	23	23	
Bubos–Catarrhal and derived from Strains etc.	21	21	
Fistula in Ano	1	1	
ExternalHemorrhoids	1	1	
Epithelioma of the Penis	1	1	
Poison from Yedra	1	1	
Porrigo	1	1	
Erysipelas of theHead	10	9	1
Punctured & Incised Wounds	9	9	
Burns and Scalds	2	2	
Amputations	3	3	
Fractures of Extremities and Ribs	30	30	
Fracture of Cranium	2	1	1
Compound Fracture of the Femur and Skull	1	0	1

	No.	Dis'd.	Died
Fracture of the Ribs, with Tearing of Lungs	1	0	1
Fracture of Pelvis	1	1	
Dislocations	7	7	
Subluxation of Ankle Joint, without Fracture	3	3	
Severe Contusions	24	24	
Old Age and Debiltty	1	0	1
Scorbutus	65	65	
	1054	1016	38

Leaving 117 cases under treatment in the Hospital January 1st, 1863. It is singularly true that there were the same number left under treatment on January 1st, 1862.

BIBLIOGRAPHICAL NOTICES.

A REPORT ON HOSPITAL GANGRENE, ERYSIPELAS AND PYÆMIA, as observed in the Departments of the Ohio and the Cumberland, with Cases appended, by M. Goldsmith, Surgeon U. S. V., Published by permission of the Surgeon-General, U. S. A. Louisville: Bradley & Gilbert, 1863. pp. 95.

THE perusal of the monograph of Dr. Goldsmith has given us much pleasure, both on account of its originality and the gratifying results which he has been able to place before the medical public.

The investigations which form its subject were made for the purpose of ascertaining "First, the nature of the causes operating to the production of the diseases (hospital gangrene, erysipelas, ichorrhæmia, thrombus, metastatic abscess, diphtheria and gangrenous scarlatina.) Secondly, the nature of the process set in motion. Thirdly, the prophylactic and curative agents.'

The important results obtained by Dr. Goldsmith, by the use of bromine in hospital gangrene, are shown in the work before us in the following report of Surgeon Geo. R. Weeks:

"I was requested by Surgeon M. Goldsmith, Superintendent of Hospitals in this city, to visit personally all the hospitals in and around Louisville, and collect from the records and Attending Surgeons all the facts that have occurred in connection with cases of hospital gangrene during the winter and spring. Having complied with this request, I beg leave to submit the following statement: I find that, up to the present time, 115 cases have been treated; in 108 of these the gangrene has been arrested, and the patients are either now well or convalescent. Of the whole number treated, 7 have died. 104 were treated with bromine, and of these none have died, from gangrene; of this number 80 were treated with the solution of bromine, and 24 with pure bromine. The average time of arrest of the disease in cases treated with the solution of bromine, was 8 days and 19 hours; in the cases treated by bromine, undiluted, the average time of arrest was 2.12; in those not treated by bromine 14.6. Of the number treated by bromine, three have died, two from pyæmia, and one from cellulitis; in all of these, gangrene had been previously arrested, as will be observed by referring to the accompanying report. The condition in each case was verified by a post-mortem examination. In the two individuals who died of pyæmia, metastatic abscesses were found in the lungs, and thrombi in the veins. I have thrown out case No. 13, for the reason that I am satisfied no definite plan of treatment was followed. The facts elicited are these: The man was brought from ———— to Hospital No. 3, in this city; at the time of his admission, his system was much reduced by abscesses of a bad nature, in the region of the thigh, the bone of which was wounded at the battle of Shiloh, on the 7th of April, 1862. The wound became gangrenous after his admission to Hospital No. 3. The surgeon in charge stated that it was impossible to apply bromine thoroughly, on account of immobility of the patient, the position and nature of the wound; and that, in his opinion, it was not applied to all the diseased surfaces. Gangrene burrowed into the cellular spaces; the patient had to be raised to have the bromine applied, and the motion caused so much pain that it was found impracticable to apply the remedy to any useful purpose. I should state also, in this connection, that the patient had a colliquative diarrhœa, to which the attending surgeon attributed his death. By reference to accompanying report, it will be seen that eleven cases have been treated by other remedies than bromine. Of this number three died, and nine recovered: of the latter, one was treated with creosote; two by extract of hæmatoxylon; two by chlor. soda, charcoal, and yeast; one by mur. tinct. iron; one by nitric acid; and one by warm water dressings.

"Both these and the cases treated by bromine had the same constitutional treatment, namely: stimulants, tonics, and nutritious diet; with the exception of those treated in Hospital No. 8, where the hyposulphite of soda was used without any apparent benefit; the compound sol. of bromine was also given internally, and the surgeon thought with a good effect. The hyposulphite of soda was given in 10 gr. doses, three times a day, and the solution of bromine was administered in the dose of three drops three times a day.

It will be seen from the foregoing statements that no deaths occurred from hospital gangrene, directly, where bromine was used; that three of these patients died, subsequently of other affections; also, that of the eleven cases otherwise treated, three died, or over twenty five per cent. When the remedy was first introduced at this post, by Surgeon M. Goldsmith, it was used mainly in the strength of bromine 1 part, water, 24. Under this treatment it will be observed that the average date of arrest was 12.61 days; but after Smith's formula was prescribed the average duration was 8.19; and that in the twenty-four cases treated by pure bromine, (these were the worst cases,) the average was 2.12 days—showing conclusively, that the pure bromine arrested it in the shortest period of time. In considering the several interesting facts falling under my observation, the following seemed peculiarly note-worthy:

"1st. The strength of the article used.

"2d. The condition of the parts to which it was applied.

"3d. The manner of its application.

"The solution of the varying effects of the treatment seems to me to be found in the study of the foregoing points.

"I found a common error in the cases where the bromine had appeared to act inefficiently. Sometimes the article used was not of sufficient strength; in others, the wound was not well prepared to receive it; and in some, it was applied too often, thus preventing the natural powers from establishing the reparative process in the wound, even after the complete destruction of the *materies morbi* in the part. From all the facts observed, I believe the following mode of application generally to be the best: First, the sloughs should be cleanly dissected away until we meet evidences of vitality, or by hemorrhage are warned to go no further—being careful to clean out all nooks and corners where the gangrene has dipped down into intermuscular spaces, or followed along cellular planes, where, unobserved, it makes its nidus safe from observation, too surely to resume its onward progress if not reached by the remedy. Second: After having removed all the dead tissues, the wound should be washed thoroughly in warm water, injecting with an ear syringe all the parts otherwise difficult to reach. Then the wound should be effectually dried with a pledget of lint or charpie, using the same care in regard to small cavities extending from the central sore; for the reason that if bromine comes in contact with the albumen, or solution of albumen, it immediately coagulates it, and thus forms a barrier to the further diffusion of the remedy. I saw many evidences of the violation of this rule whilst visiting the hospitals. The surgeon would frequently remark: 'The gangrene was arrested everywhere, except in two or three small points as large as the end of the finger;' and these were always found to be rich in cellular tissue, occupying intermuscular spaces, along which the process had traveled with more rapidity than at any other, and, consequently, it frequently extended beyond the reach of the remedy, and passed beyond the limit of vision. Third: Having the wound thus prepared, pure bromine should be applied with a mop or swab to every part of it. If all the surfaces cannot be reached in this way, the bromine should be injected into the smaller cavities with a glass syringe, (and with a pointed stick of wood, adapted to the dimensions of the cavity, with the end covered or not, as the case may require, by a peice of soft cloth or lint.) It should be pressed up and thoroughly mixed with all the pulp or pultaceous fluid that may still linger in the wound. Simple dressings should then be applied, and the wound excluded from the atmosphere. On the second or third day after the application, warm water dressings should be used to facilitate the detachment of the sloughs, and to wash away all molecular matter that may have accumulated in the wound. In four or five days granulations may be observed springing up, and, if no fetor be present, the cure will be complete. However, if some fetor still lingers about the wound, it is evident that some points have escaped, and these should be re-touched, observing the same rules as in the first application of the remedy, and being careful to apply it only to the places where the gangrene is not arrested. The wound should then be treated on general principles. The only case where I would use the *solution* of bromine is, as a local stimulant, where the granulations are weak. I believe, where pure bromine is thus applied, one application is sufficient to arrest the disease. As yet, no case has occurred which has needed a second application of the remedy where it has been used in the manner heretofore stated; and, for my part, I cannot imagine the condition that would demand it. In regard to the repetition of the application, I consider it of as much importance to await, after one efficient application, the detachment of the sloughs and commencement of granulation, as I do the application of the remedy in the first instance. It is just as impossible for repair to be set up in a wound where bromine is used frequently, as if nitric acid was applied in its stead. Although the process is stayed, repair is prevented by the frequent re-application of the remedy. This fact is well illustrated in case 93, where pure bromine was said to have been applied twice a day for a month before granulations made their appearance, and the surgeon might have added that they never would have been observed if he had not ceased to apply the remedy; for then granulations made their appearance, which would have been also the case if he had ceased the application sooner. This is the explanation of all the cases reported in which bromine was used for the period of one or two weeks, and was reported to have failed to arrest the disease. When bromine was first used here, it was commonly applied in a weak solution three times a day. It will be seen that, in some cases, after the remedy was discontinued, or another of a more harmless character substitutud, the wound rapidly granulated. As a case in point I refer to Case 25, occurring in Hospital No. 4. In this case the disease resisted the action of a compound solution of bromine, as the surgeon stated, and was arrested by a weak solution of creosote.

"It will be seen by noticing the three following cases (as the surgeon treated them all in the same manner) that he was of the opinion that in creosote he had a better remedy than bromine—a proposition he has failed to verify, as will be learned from Case 30, where creosote was used for ten days without any perceptible arrest of the process, after which it was arrested by three applications of bromine. This case I saw. It was on the inner aspect of the left thigh, below Scarpa's triangle, and was about six inches in diameter The same length of the internal saphenous vein, running directly across the sore was destroyed. The wound is now rapidly filling up with granulations, and the patient doing well in every respect. In the investigations of these cases, many interesting facts were observed in regard to the effect of the local application of bromine to gangrenous sores on the constitutional symptoms, the entire weight of evidence being that the constitutional disturbance and manifestations began to disappear as soon as the local disease was arrested by the remedy. This was observed by friends and visitors, as well as physicians, namely: The rapidity with which the constitution rebounded after being relieved of its burden. The anxious and pinched expression of countenance, the general feeling of lassitude, languor, and debility, the leaden hue of the surface, rapidly passing away; the skin, if clammy and bathed in perspiration, became warm and dry; the pulse rose in strength, and decreased in frequency; the appetite returned; and, in short, all the organs began to assume their natural tone and vigor. These effects were observed very constantly, immediately after the first application of bromine, and could not be attributed to the constitutional treatment, as the same condition was observed where no constitutional treatment had been used. I leave the argument for others; my limits will only permit the simple record of the facts.

"I wish also to direct attention to another very important point, namely: the practicability, by the aid of bromine, of tying an artery in a gangrenous sore where secondary hemorrhage has occurred.

"If bromine will arrest gangrene as certainly and as speedily as this report shows, can there be any objection to tying the artery in the wound? thus following the original rule of Guthrie, directing that the bleeding vessel, if it can be reached, shall always be secured in the wound. If we tie it immediately beyond the dead and in the living tissue, and if by the aid of bromine we are certain of arresting the further invasion of the parts by the gangrenous process, what objection could be urged against this procedure? It is in cases of this character that bromine holds superiority over nitric acid and all other known remedies—the capability of arresting the gangrene without destroying important parts which cannot be avoided in the application. Case No. 4 presented itself, and I embraced the opportunity of ascertaining the facts from actual observation.

"I was requested to see this man, and found that he had had secondary hemorrhage to the extent of about fifty ounces. I found him pulseless and cold from loss of blood. His leg had been amputated January 1st, 1863. The flaps had all sloughed off, the tibia projecting two inches. I directed that he should have stimulants, and waited a short time until he partially rallied. I then prepared the wound as heretofore directed. Upon loosening the tourniquet, the anterior tibial artery bled freely; I tried it in the wound just below the junction of the upper and middle third of the tibia, and applied pure bromine effectually to the wounded surface I kept the tourniquet on loosely, and an attendant, instructed in its use, was constantly at the bedside, day and night. On visiting the patient next day, I found him very comfortable; pulse 100; skin warm; appetite better; looking bright; anguished countenance displaced by a more cheerful one. There was no fetor emitted from the wound, and the patient was every way doing well; the ligature came away the fifth day—no hemorrhage appeared; he is still convalescing; wound is filling up slowly. In this case granulations were slow in making their appearance—attributable to the great loss of blood. Applied weak solution of bromine to the wound; the case is now convalescing rapidly and no hemorrhage has occurred. Two other cases illustrating the same principle, to some extent, have occurred in hospitals in this city. One at Hospital No. 3, Case 6 of accompanying report, where the brachial artery, was tied in a gangrenous sore with a like result. Another occurred at Hospital No. 12, Case No. 77, where the dorsalis pedis artery was tied under the same circumstances and with the same result

" After having visited all the hospitals, gleaned all the facts, heard all the evidence, and conversed with all the surgeons, the impression left upon my mind is, that in bromine we have a remedy *certain* in its effects for the arrest of hospital gangrene, the greatest scourge of military hospitals. This I am aware is strong language, but I think not more so than the circums ances and evidence in the case warrant. I expect most confidently the future twill verify what I am now saying. Bromine has robbed gangrene of its terror, and shorn it of its power to stalk through the wards where the sick and wounded are congregated, spreading its contagious and pestilential influence in every direction. But, armed as the surgeon now is by the use of a remedy so certain in its effects, a feeling of security pervades the entire profession at this post, not only in this, but in all that family of diseases formerly supposed to have their origin in blood poisoning, namely: erysipelas, gangrenous diphtheria, scarlatina, &c.; its use allows us to class hospital gangrene among those diseases over which the surgeon has as absolute and complete control as the physician has over intermittent fever. I am forced to the conclusion, from all the facts presented, looking at them, I think, with an impartial eye, that bromine will as surely arrest hospital gangrene as quinia will ague.

" GEO. R. WEEKS, *Surgeon U. S. V.*"

We are particularly pleased with the judicious remarks of Dr. Goldsmith respecting the primary local character of hospital gangrene, diphtheria and some other diseases, and we are satisfied that this opinion will, sooner or later, prevail over dogmata which have been accepted too hastily by the profession.

In 1856, and again in 1858, we earnestly advocated that in diphtheria "*the constitutional infection was secondary to and dependent on the local affection.*"*

Believing that these views are correct, we hope that subsequent investigations will bring new facts to their support.

" A few remarks," says Dr. Goldsmith, " are appended which force themselves so strongly upon my attention that I feel I must give them utterance, however heretical and revolutionary they seem in the presence of traditional dogmata. It will be seen that in the history of the several affections treated of in this report, one fact seems to pervade all that is said, and that is, the reactive influence of the local pathological processes—the constitutional contaminations caused by the absorption of the fluids produced in the local processes.

" That constitutional contaminations, general disease, may be produced by local maladies, is shown by the occurrences observed in syphilis, in vaccinia; in glanders, in rabies canina, and, from what is recorded in the cases hereto appended, in hospital gangrene. In these diseases it is evident that the abortion of the local processes prevents constitutional contamination; or, if such contamination exists, as in hospital gangrene, the symptoms peculiar to the general malady disappear quickly after the arrest of the local process.

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* Diphtheritis: A concise, historical and critical essay on the late epidemic pseudo membranous sore throat of California (1856-57.) By V. J. Fourgeaud, M.D.

"Virchow, I think, has established the general law that in the sense commonly employed there was no such thing as a permanent dyscrasia. He has shown that the syphilitic dyscrasia is but a continuous infection arising from the continued production of syphilitic matter in the lymphatic glands of the neck;—that with the subsidence of the lymphatic enlargements, the syphilitic dyscrasia disappears;—that the cancerous cachexia is but a continuous infection from the diffusion of the cancerous juices. The vaccine infection disappears with the cicatrix—this is a common impression. When the surgeon examines the arm of a person, to see if re-vaccination is needed, if the characteristic scar has disappeared, he re-vaccinates; if he finds a scar good, he does not re-vaccinate. Besides, there is good reason to believe, though the cases have not been numerous enough to warrant the statement as a settled fact, that those who have lost the vaccinated arm by amputation at the shoulder joint, lose their protection; so that we are at least warranted in entertaining the suspicion that the vaccine dyscrasia, so to speak, is a continuous infection from the cicatrix.

"Further: we are prepared to believe that this is true of the foregoing diseases, because we see in them a regular series of events constantly recurring in the order and relation of cause and effect. If we could see a certain set of constitutional disturbances, tolerably constant to certain local processes, (as, for example, the symptomatic fever of small-pox, or the waxen face of scarlatinous fever coincident with ulceration of the tonsils,) disappear whenever the local processes were arrested, surely we would be authorized, whatever our idea of the original disorder may have been, to believe that, in the particular states, the symptoms referrud to were due to some influence exerted by the local processes themselves.

Now, what are the facts?

1st. If the small-pox pustules or vesicles are opened, and if iodine, bromine, or nitric acid is applied, the vesicle or pustule is aborted; a scab is immediately formed, it soon falls, and if the whole crop or the major part of the crop of pustules has been aborted—the whole constitutional disturbance abates, and immediate convalescence ensues.

2d. If the ulcerous surfaces of the tonsils, in scarlatina, are brought into a healthy condition—nay, more, if the peculiar processes are arrested—nay, still more, if the fluid products of the ulcers are not swallowed, and are rendered inert by the application of any re-agent which breaks up their chemical structure—the constitutional state passes off.

3d. The same is true of diphtheria. In regard to the two last mentioned diseases, reference is made to the individual observations of the reader. Is it not within the latter's knowledge that groping empiricism claims no blood or constitusional antidote, specific and peculiar to either of the blood states, or to both? She supports the strength, just as she does in typhus, pyæmia, erysipelas, and other disorders of a "low type." The great reliance of medicine is in topical remedies, the mineral acids, chlor. ferri, chlor. sodæ, &c., &c. Now why? Surely if the local state is but the local expression, or a part of the local expresion, of the general state (for so the saying goes), what need of addressing ourselves to the mere outcrop of the disease, while the real gravamen is in the blood behind all this? Is it not, rather, that empiricism, a sounder teacher than a crude philosophy, has somehow felt that the constitutional state is in some way dependent upon the local state? Whether this view is frankly avowed or not, the idea stands confessed in the treatment instituted; for if the local treatment does not embrace this idea, then it is blind and purposeless indeed. True, sometimes the local processes in both scarlatina and diphtheria produce death without reference to the constitutional state. But how often does this occur, in comparison with the frequency of death through the increasing gravity of the constitutional symptoms?

4th. Pyæmia is the constitutional state attending upon, or rather occasionally produced by wounds—*e. g.*, the theory runs that patients by breathing a poisoned atmosphere acquire a constitutional or blood state, eventuating in if not consisting of pyæmia. Now it is a singular circumstance to begin with, that no one has pyæmia who has not, somewhere in his body, infiltrating tissues, filling cavities, or flowing from wounds or their equivalents, animal fluids whether regarded as exudates without morphological change, or in the form of cell-bearing liquors. Again, it is within the knowledge of every medical man that pyæmia may occur independent of suppuration, in connection with pathological processes where the warmest of Virchow's admirers fail to discover any cell-growth or cell-differentiation; nay, more, pyæmia is more constant to such collections as are found in exquisite erysipelas, where the purulent fluids yield to the most searching investigation neither cells, nor nuclei, nor nucleoli—nay, not even a connective tissue, corpuscle, or any morphological structure; and that seemingly, just in the degree that the morbid products approach the standard of true pus the danger of pyæmia grows less. Does any surgeon anticipate pyæmia in a so-called healthy suppurating wound? Does he not, rather, when healthy suppuration takes place, fetch the long breath that betokens a danger passed—an anxiety relieved? I appeal to universal experience.

Yet the co existence of pyæmia with the conditions mentioned above is so constant and invariable, that the common instinct of medicine associates them in some sort of relation of cause and effect.

More than this: the every day record of cases shows the co-existence of pyæmia rather with ill-conditioned discharges; and every day's record also, sets forth the amendment on the opening of confined collections, the use of drainage tubes, the cleansing of the parts, etc., etc. It may not be, and often is not stated that the amendment was because of these events, but the coincidence occurs. Still more: the appended cases, noticed with peculiar reference to this matter, show that this amendment coincides (with a certainty that is remarkable, and a rapidity that is marvelous) with the injection into the infecting cavities of substances which, by strong coercion, arrest the putrefactive motion, destroy the products of putrefaction, and render putrescible substances non-putrescible.

5th. The constitutional condition allied to hospital gangrene is a sequent state. The proof of this statement is abundant in the record of cases hereto appended. The reader's attention is invited to the constant subsidence of the general or constitutional disturbances upon the arrest of the gangrene, a subsidence constant, marked and immediate—most emphatically pronounced in those cases where the bromine was used undiluted. and carefully applied. The attention of the reader is called to the ameliorations corresponding with the amelioration of the gangrene, to the constant persistence of some general expression so long as any part of the surface was untouched or unchanged. So constant was the loss of appetite, debility, etc., to the lingering of the gangrenous process in limited portions of the surface, that the very hue and expression of the face betokened the fact, told the story to the observant surgeon. It is needless for my present purpose, to multiply examples. I desire, here, merely to convince the reader that, in some diseases, THE GRAVAMEN OF THE CONSTITUTIONAL STATE, IF NOT ITS TOTALITY, IS PLAINLY DUE TO THE ABSORPTION OF THE PRODUCTS OF THE LOCAL PROCESSES. I say, *absorption;* for it is not possible to conceive of any other process by which the whole organism could be involved to the extent noticed.

Now, if the proposition is proven in regard to the diseases in question, it may reasonably be asked if it is not also true of other disorders—if it is not, even within certain bounds, a law in medicine? I confess that my observations lead me to think it is one of broader significance and wider application than is generally believed The matter, of course, needs a full investigation. I do not desire, in what is here written, so much to challenge belief as to invite investigation. If the projected law is a true one, the effect would not be to revolutionize but to simplify; to give precision to methods now vaguely used; to give definite views and purposes to remedial measures; to draw attention to the completeness in the effect of traditional remedies; to supplant surmise with faith, and indecision and doubt with confidence.

INTRODUCTORY ADDRESS DELIVERED BEFORE THE STUDENTS OF JEFFERSON MEDICAL COLLEGE, PHILADELPHIA. By Professor Samuel H. Dickson. October 12, 1863. Published by the Class.

PROFESSOR DICKSON is so well known and so highly appreciated as a lecturer and an author by the medical profession, that it is unnecessary for us to eulogize any production of his. It is enough to say that the lecture before us is marked by the characteristic elegance and ability of the accomplished author.

Deeply versed in the literature and philosophy of our science, and with a mind enriched by "the studies and observation of a long life and an extensive practice," he dwells with great earnestness on "the obscurities and uncertainties of the practice of physic," boldly points out the difficulties which beset the path of the practitioner, and indicates the most judicious course for him to pursue.

"The function of the physician," he says, "is as plain as it is important, and may be defined under a few simple categories. He is called upon

"To avert preventable death—assuming that death is sometimes preventable;

"To prevent avoidable suffering and injury from disease;

"To diminish or palliate irremediable suffering and injury; and

"To reduce to its minimum the agony of inevitable death.

"Your purpose here is to learn the means of effecting these objects; mine, to teach you so far as I know them, the appliances and methods by which they are best attained.

"Are there to be found any such means and appliances? Is there an art of healing? Does there exist a science of medicine? Do we deceive ourselves, or give utterance to an empty boast, when we presume to claim the power—under Providence—to relieve suffering—to save life?

"The ever changing aspect of medicine, considered as a science, has been made a frequent taunt, and its varying condition, as an art, a basis of positive denunciation; and it behooves us to inquire into the real ground of such depreciatory remark. Even among ourselves, in the midst of our own body, there is manifested a spirit of infidelity, or, at least, a hypercritical disposition to impugn the safety, the usefulness, the efficiency and the propriety of all therapeutical administration; to discourage all direct interference with the sick; to protest against all formulæ of prescription for them; and to recommend a reliance upon "nature in disease," as, on the whole, the wisest course of conduct in regard to them. This system of expectant medicine is more or less fully and openly advocated by different authorities, of whom separately it is not easy to understand how far each one of them may be inclined to drive us to inaction. While Forbes and Bigelow merely urge, in well rounded sentences, a paramount reliance on nature, Holmes, more frankly, and with somewhat less vagueness, proposes an abandonment and general abolition of "drugs;" yet, even he excepts "opium and a few specifics," a phrase which leaves us still uncertain as to his actual position. Against this most impotent and negative doctrine, if it may be called by so definite a name, the blank despair of progress which it implies is, I think a broad and conclusive argument. On this ground alone, I reject it peremptorily and finally. Experience may be fallacious, and testimony uncertain. Our senses and our reason often lead us astray; but it is not only absurd – it is impossible to refuse their direction. We must not, cannot stand still; and we must proceed upon the data afforded us by our senses, our experience: by testimony, the experience of others; and by our reason, employed in collecting, weighing and valuing these, and thence deducing rules for our advancing movements. Deciding, then, without the hesitation of an instant, on the necessity and duty of interference, we are encountered by the difficult questions—how? how far? in what direction? shall we endeavor to assist, or shall we oppose the "nature" of which we read and hear so much?"

These important interrogatories form the subject of the Address of the Professor, who, while opposing the absolute doctrine of the *vis medicatrix naturæ*, very judiciously observes:

"Let me impress upon you not less distinctly my conviction that in the very gravest maladies admitting of relief or cure, you will meet with a notable proportion of cases—in the milder perhaps a majority—with which you need not interfere, and, needing not, you ought not, you must not. These you will sedulously distinguish, and manage by expectation, by regimen, or with placebos. Remember that it is not permitted to you to treat any single patient that shall ever fall into your hands upon any pre-arranged plan, or according to any routine established on any average results, however obtained. Every subject of your care must be individualized, and regarded as an insulated unit. I have warned you that the laws which govern living organisms are not, as we now apprehend them, inexorable and immutable, like those of the inorganic world. They are bristling with seeming exceptions, alternatives, anomalies. The sick man before you may be the eccentric, irregular exception in your table of one hundred, whose life will be destroyed by the very means best adapted to preserve or restore the other ninty-nine.

"Chomel's pithy maxims: 1. To take care to do your patient no harm; and, 2. To endeavor next in order, and in entire subservience to the first, to endeavor to do him all the good you can—are worthy of all acceptation. "Benevolence," in Gibbon's fine phrase, "is the foundation of justice; since we are forbidden to injure those whom we are bound to assist." Thus resolved and guarded, I go on to demand of you, as you hope to be useful in your day and generation, and as you desire to promote the advancement of the divine art of healing, a fearless as well as disinterested devotion. From my very heart I approve and honor the boldness of Marshall Hall in opening the trachea for the prevention of epilepsy; the courage of Trousseau and Bowditch, in the early resort to paracentisis for the removal of pleural effusion; the daring of Green in his now familiar manipulations on the larynx, and his audacious injection of fluids into the bronchi and lungs. I do not speak here of the merits of these methods of treatment; I refer to them as enterprises calculated to inspire you with lofty zeal and earnest emulation."

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Historical Sketches—To be continued in the next number.

HEALTH OF SAN FRANCISCO.—The large mortality which marked the month of October continued during the month of November. There were 237 deaths during the latter month, being one more than the number reported for October.

Of the 237 deaths, 138 were recorded at the Lone Mountain Cemetery, of which 36 were under three years; 95 in the Roman Catholic burying ground, of which 36 were under three years; and 4 in the Jewish cemeteries.

The principal causes of death were reported as follows:—Consumption, 27; other lung diseases, 11; brain diseases, 8; heart diseases, 6; dysentery and diarrhœa, 8; typh fevers, 5; scarlet fever, 7; measles, 3; diphtheria, 8; croup, 11; whooping cough, 1; cholera infantum, 1; epilepsy, 1; gangrene, 2; dropsy, 1; convulsions, 3; dentition, 1; still-born, 10.

It will be observed that the mortality from consumption and other lung diseases amounted to 38—an unusually large number, which may be attributed to the pernicious influence of the epidemic of influenza which continued to prevail during the month of November.

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